

AD-A096 293

FEDERAL AVIATION ADMINISTRATION WASHINGTON DC SYSTEM--ETC F/G 1/5  
SRUS TECHNICAL PROGRAM DOCUMENT. FISCAL YEAR 1981. RESEARCH & D--ETC(U)  
JAN 81

UNCLASSIFIED

FAA/RD-81-3

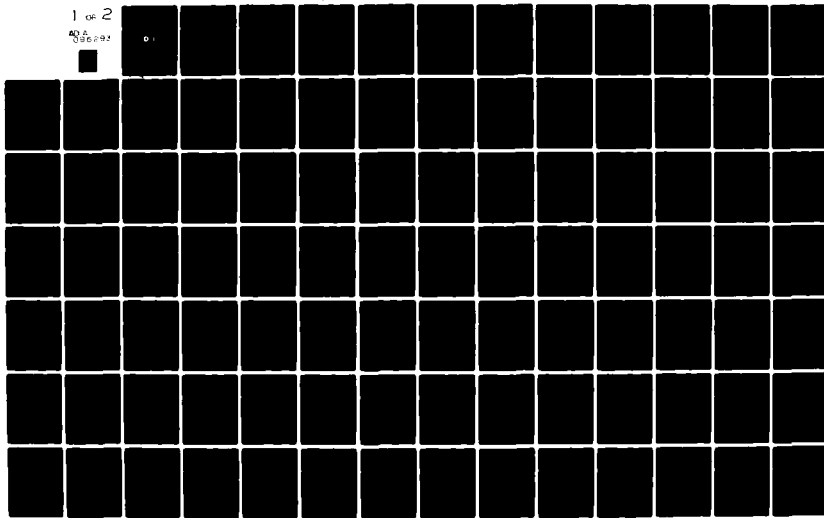
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REPORT NO. FAA/RD-81-3

AD A 096293

6 SRDS

# TECHNICAL PROGRAM DOCUMENT.

FISCAL YEAR 1981.

RESEARCH & DEVELOPMENT APPROVED PROJECTS.



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U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
Systems Research & Development Service

Washington, D.C. 20590

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# Technical Report Documentation Page

1. Report No. FAA-RD-81-3 ✓	2. Government Accession No. AD-A096293	3. Recipient's Catalog No.															
4. Title and Subtitle SRDS TECHNICAL PROGRAM DOCUMENT, Fiscal Year 1981 Research and Development Approved Projects		5. Report Date January 1981															
		6. Performing Organization Code															
		8. Performing Organization Report No.															
7. Author(s)		10. Work Unit No. (TRAIS)															
9. Performing Organization Name and Address U.S. DEPARTMENT OF TRANSPORTATION Federal Aviation Administration Systems Research and Development Service Washington, D.C. 20590		11. Contract or Grant No.															
		13. Type of Report and Period Covered Technical Program Document FY-81															
12. Sponsoring Agency Name and Address U.S. DEPARTMENT OF TRANSPORTATION Federal Aviation Administration Systems Research and Development Service Washington, D.C. 20590		14. Sponsoring Agency Code ARD-443															
15. Supplementary Notes																	
16. Abstract This Technical Program Document (TPD) contains Research and Technology sheets which reflect Systems Research and Development Service, Federal Aviation Administration, approved projects which have significant activity occurring in Fiscal Year 1981 and beyond. These sheets contain the requirement, participating organizations, specific objectives, and milestones scheduled for accomplishment. The dates identified are in effect as of the report date (1/06/81) and are subject to change.  This TPD is structured according to the following Engineering and Development Programs:  <table border="0"> <tr> <td>02 Radar</td> <td>09 Airport/Landside</td> </tr> <tr> <td>03 Beacon</td> <td>12 En Route Control</td> </tr> <tr> <td>04 Navigation</td> <td>13 Flight Service Station</td> </tr> <tr> <td>05 Airborne Separation Assurance</td> <td>14 Terminal/Tower Control</td> </tr> <tr> <td>06 Communications</td> <td>15 Weather</td> </tr> <tr> <td>07 Approach and Landing Systems</td> <td>18 Aircraft Safety</td> </tr> <tr> <td>08 Airport/Airside</td> <td>21 Support</td> </tr> </table> Type Indicator Milestones are for intra-agency use.				02 Radar	09 Airport/Landside	03 Beacon	12 En Route Control	04 Navigation	13 Flight Service Station	05 Airborne Separation Assurance	14 Terminal/Tower Control	06 Communications	15 Weather	07 Approach and Landing Systems	18 Aircraft Safety	08 Airport/Airside	21 Support
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03 Beacon	12 En Route Control																
04 Navigation	13 Flight Service Station																
05 Airborne Separation Assurance	14 Terminal/Tower Control																
06 Communications	15 Weather																
07 Approach and Landing Systems	18 Aircraft Safety																
08 Airport/Airside	21 Support																
17. Key Words Research and Development Research and Technology Resumes Technical Program R&D Projects		18. Distribution Statement Document is available to the U.S. public through the National Technical Information Service, Springfield, VA. 22161.															
19. Security Classif. (of this report) UNCLASSIFIED	20. Security Classif. (of this page) UNCLASSIFIED	21. No. of Pages 120	22. Price Special														

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NEXRAD Requirements Analysis Engineering Support  
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## PROJECT

## Title

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LF/MF Assignment Handbook Revision  
ECAS EMC Analysis (ECAC)  
VHF/UHF Air/Ground Communications Frequency  
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VHF/UHF Microwave Link Frequency Engineering  
Handbook 6050.17A Rev.  
Metrication in the National Airspace System  
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Mexico City Airspace/Airport Study  
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Consolidated Displays  
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and Associated Interfaces

REPORT DATE: 1/06/81

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\* RESEARCH AND TECHNOLOGY \*  
\* \*  
\* TECHNICAL PROGRAM DOCUMENT \*  
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1. PROJECT NUMBER: 021-241-010      2. START DATE: 10/75      3. REVISION NUMBER: 3  
4. TITLE: PRSR/CD ALIGNMENT AND ADJUSTMENT PROCEDURES      5. MANAGER: KENNETH THOMPSON

6. ORGANIZATION: ARD-231      7. TELEPHONE NUMBER: 202-426-8576

9. REQUIREMENT: ARD-100 LTR REQUEST 9/75; REVALIDATED 2/78

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:  
FAA TECH CENTER ACT-100H      TPD-02-106

11. SPECIFIC OBJECTIVES:

TO INVESTIGATE THE ALIGNMENT AND ADJUSTMENT PROCEDURES OF ARSR ENROUTE SYSTEMS TO ENHANCE PROCESSING OF COMMON DIGITIZER (CD) DATA AND RECOMMEND ANY IMPROVEMENTS AND MODIFICATIONS TO ARD-100.

12. MILESTONES:

TYPE	DESCRIPTION	CURR
INDICATOR		DATE
W	EPT ARSR/CD IMPROVEMENTS ISSUED	
P		

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REPORT DATE: 1/06/81

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1. PROJECT\_NUMBER: 021-241-020

2. START\_DATE: 10/79

3. REVISION NUMBER: 2

4. TITLE: RADAR DETECTION OF LIPDS HAZARDOUS TO AIRCRAFT

6. ORGANIZATION: ARD-231

7. TELEPHONE\_NUMBER: 202-426-8576

9. REQUIREMENT: FAA FORM 9550-1, NO. AAS-300-79-1, 5/25/79

10. ~~PARTICIPATING-DOT-GOVERNMENT-ORGANIZATIONS-AND-AGREEMENT-NUMBERS:~~

ORGANIZATION NAME: FAA TECH CENTER, ACT-100H

AGREEMENT NUMBER:  
TPD-02-106

### 11. SPECIFIC OBJECTIVES:

TO DEVELOP REQUIREMENTS OF A PORTABLE RADAR RECORDING SYSTEM SUITABLE FOR USE IN MONITORING AND RECORDING HIND MOVEMENTS IN AN AIRPORT SURVEILLANCE RADAR (ASP).

12. **ATTENTION:**

TYPE	INDICATOR	DESCRIPTION	REF. NO.	DATE	TIME	BY	FORWARDED TO	REMARKS
							FORWARDED TO AAS	

CURR  
DATE  
10/80

REPORT DATE: 1/05/81

1. PROJECT\_NUMBER: C22-242-030 2. START\_DATE: 7/76 3. REVISION\_NUMBER: 1  
4. TITLE: AIRPORT POPPLP RADAR LOW-ALTITUDE WIND SHEAR DETECTION 5. MANAGER: ISADORE GOLDMAN  
6. ORGANIZATION: APD-231 7. TELEPHONE\_NUMBER: 202-426-6576  
9. REQUIREMENT: EGD PROG PLN WIND SHEAR FFA-ED-15-2A, SEE APD-1 LTF DATE 8/31/79  
10. PARTICIPATING GOV/GOVERNMENT\_ORGANIZATIONS\_AND\_ACREMENT\_NUMBERS:

ORGANIZATION NAME:  
NCAA/WAVE PROP LAB, HOLDER, CO, TSK 7  
FAA TECHNICAL CENTER (PROJ 830)

AGREEMENT NUMBER:  
FA76FAI622  
TFD-02-106

## 11. SPECIFIC OBJECTIVES:

TO DETERMINE THE FEASIBILITY OF USING AN AIRPORT PULSE DOPPEL RADAR TO IDENTIFY WIND SHEAR HAZARDS ALONG AIRPORT RUNWAY APPROACH AND DEPARTURE PATHS TO PROVIDE WARNING OF DANGEROUS WINDS.

## 12. REFERENCES:

TYPE	DESCRIPTION	CURR
INFLATOR	REPORT (ADVANCE REVIEW COPY)	DATE 2/81



1. PROJECT NUMBER: 022-243-010      2. START DATE: 0/00      3. REVISION NUMBER: 12
4. TITLE: MOVING TARGET DETECTOR (MTD)      5. MANAGER: DONALD TURNBULL
6. ORGANIZATION: AFSC-231      7. TELEPHONE NUMBER: 202-426-8576
9. REQUIREMENT: PROGRAM PLAN FRA-ED-02-1 AAF LETTER 7-76
10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

AGREEMENT NUMBERS:  
 TTD-02-106  
 WAT-679

ORGANIZATION NAME:  
 FFA TECHNICAL CENTER, ACT-100H  
 USAF  
 N.R. REG AND EASTERN REGION

11. SPECIFIC OBJECTIVES:

SRDS WITH CONTRACTOR AND FAA TECHNICAL CENTER SUPPORT WILL PROVIDE FOR THE DEVELOPMENT AND EVALUATION OF ADVANCED RADAR SIGNAL PROCESSOR THAT WILL PROVIDE GREATLY IMPROVED DETECTION OF AIRCRAFT IN THE PRESENCE OF GROUND AND PRECIPITATION CLUTTER AND ALSO PROVIDE GREATLY IMPROVED RADAR TRACKING CAPABILITY FOR AUTOMATED SYSTEMS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUER
P	1	TEPA TTD-II CONTRACT AWARDED	DATE 9/76
P	2	EN ROUTE TTD II CONTRACT AWARDED	8/76
P	3	TTD II TDP OF ASR-9 COMPLETE	4/79
P	4	TTD II TDP FOR ASR-7/8 TO AAF	3/80
P	5	TTD II TDP EN ROUTE RADARS TO AAF	3/80
P	6	TTD FINAL REPORT	1/81

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 \* F E S E A R C H   A N D   T E C H N O L O G Y \*  
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 \*                    T E C H N I C A L   P R O G R A M   D O C U M E N T \*  
 \* \* \* \* \*

REPORT DATE: 1/06/81

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- 1. PROJECT NUMBER: 033-241-010                    2. START DATE: 7/76                    3. REVISION NUMBER: 9
- 4. TITLE: ATCRBS IMPROVEMENTS (ANTENNA/PROCESSORS)                    5. MANAGER: JOSEPH DEMEO
- 6. ORGANIZATION: ARD-232                    7. TELEPHONE NUMBER: 202-426-8340
- 9. REQUIREMENT: 950.1, AAF-75-04 EED PROC PLAN (PROPOSED) FAF-ED-03-02
- 10. PARTICIPATING DOL/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:                    AGREEMENT NUMBER:  
 FFA TECHNICAL CENTER (C. HAZELWOOD)                    TFD 03-173  
 LL USAF-IAA                    72WAI-242

11. SPECIFIC OBJECTIVES:

TO DESIGN AND DEVELOP IMPROVED ATCRBS ANTENNAS & BEACON SIGNAL PROCESSORS IN SUPPORT OF THE AGENCY  
 ATCRBS IMPROVEMENT PROGRAM. THE RESULTING SPECIFICATIONS ARE USED BY THE OPERATING SERVICES TO  
 IMPLEMENT IMPROVEMENTS IN THE OPERATIONAL TERMINAL/ENROUTE FACILITIES.

12. MILESTONES:

TYPE	DESCRIPTION	CURE
INDICATOR	TOP HANDOFF, LIGHTWEIGHT ABP	DATE
		4/81

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# RESEARCH AND TECHNOLOGY TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 1/06/81

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1. PROJECT\_NUMBER: 034-241-010      2. START\_DATE: 1/72      3. REVISION\_NUMBER: 7
4. TITLE: DISCRETE ADDRESS BEACON SYSTEM (DABS)      5. MANAGER: JOSEPH DEMEO
6. ORGANIZATION: ARD-230      7. TELEPHONE\_NUMBER: 202-426-4085
9. REQUIREMENT: ECD PROGRAM PLAN FAA-ED-03-1

## 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:  
 LL (USAF)      72WAI-261  
 FAA TECHNICAL CENTER (I. BONA)      TPD 03-110  
 ECAC (DOD)      77WAI-778

## 11. SPECIFIC OBJECTIVES:

TO PROVIDE IMPROVED SURVEILLANCE AND DATA LINK COMMUNICATIONS TO SUPPORT THE ATC AUTOMATION SYSTEMS  
 NEEDS INCLUDING COLLISION AVOIDANCE FOR THE PROJECTED 1980'S AND 1990'S TRAFFIC ENVIRONMENTS. THE  
 SELECTED DESIGN IS TO PERMIT AN EVOLUTIONARY INTRODUCTION OF DABS AND IS COMPATIBLE WITH THE  
 EXISTING ATCRBS.

## 12. FILTERS:

TYPE	INDICATOR	DESCRIPTION	CURR
		FINAL NATIONAL STANDARD TO AOA-1	DATE
M		MODE 4 FLIGHT TESTS	11/80
MC		COMP DABS/AINS (DOD) EMC TESTS	10/80
MC S		SINGLE/MULTI SENSOR TDP	12/80
MC	N	MULTI-SITE TCE INITIATED	4/80
N	N	MULTI-SITE TCE COMPLETED	9/80
MC S		MULTI-SITE TCE TDP	4/82
			4/82

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 \* RESEARCH AND TECHNOLOGY \*  
 \* \* \*  
 \* TECHNICAL PROGRAM DOCUMENT \*  
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REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 034-242-010 2. START\_DATE: 1/72 3. REVISION\_NUMBER: 6  
 4. TITLE: AUTOMATIC TRAFFIC ADVISORY & RESOLUTION SERVICE (ATARS) 5. MANAGER: JOHN SCARDINA  
 6. ORGANIZATION: ARD-241 7. TELEPHONE\_NUMBER: 202 755-4995  
 9. REQUIREMENT: UPGRADED 3RD SEPARATION ASSURANCE REQUIREMENTS  
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 FAA TECHNICAL CENTER, ACT-140 TPD 03-110  
 FAA TECHNICAL CENTER, ACT-220 TPD 05-298

# 11. SPECIFIC OBJECTIVES:

TO DEVELOP AND EVALUATE THE AUTOMATIC TRAFFIC ADVISORY AND RESOLUTION SERVICE - A GROUND-BASED COLLISION AVOIDANCE SYSTEM DESIGNED TO IMPROVE THE SAFETY OF CIVIL AVIATION BY REDUCING THE PROBABILITY OF HEAD-ON COLLISIONS FOR BOTH CONTROLLED AND UNCONTROLLED AIRCRAFT.

# 12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MC		ATARS INPUT TO DARS TDP BY SPEC	4/80
M		PUBLISH DRAFT NATIONAL STANDARD IN FED REGISTER	12/80
MC		PUBLISH CPFS FOR COMPLETE ATARS WITH CSR	6/81
MC		PUBLISH FINAL NATIONAL STANDARD IN FED REGISTER	10/81
M		INITIATE TESTING COMPLETED ALGORITHM WITH CSR	1/82
M		ATARS TEE DRAFT REPORT	4/82

REPORT DATE: 1/06/81

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R E S E A R C H   A N D   T E C H N O L O G Y  
\*\*\*\*\*  
TECHNICAL PROGRAM DOCUMENT  
\*\*\*\*\*

1. PROJECT\_NUMBER: 035-242-010      2. START\_DATE: 6/80      3. REVISION\_NUMBER: 0  
4. TITLE: AUTOMATIC TRAFFIC ADVISORY & RESOLUTION SERVICE (ATARS)      5. MANAGER: JOHN SCARDINA  
6. ORGANIZATION: ARD-241      7. TELEPHONE\_NUMBER: 202-755-4995  
9. REQUIREMENT: UPGRADED 3RD SEPARATION ASSURANCE REQUIREMENTS  
10. PARTICIPATING\_DOT/GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME:  
FAA TECHNICAL CENTER, ACT-100A  
FAA TECHNICAL CENTER, ACT-220  
AGREEMENT NUMBER:  
TPD-03-110  
TPD-05-298

11. SPECIFIC OBJECTIVES:

DEVELOP SITE ADAPTED AND OPTIMIZED ATARS PARAMETERS TO SUPPORT THE OPERATIONAL DEVELOPMENT OF THE INITIAL ATARS SITES.

12. MILESTONES:

INDICATOR	TYPE	DESCRIPTION
NC	N	SITE ADAPTATION PROCEDURES REPORTS

CURR  
DATE  
4/85

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 \* RESEARCH AND TECHNOLOGY \*  
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 \* TECHNICAL PROGRAM DOCUMENT \*  
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REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 036-241-010  
 2. START\_DATE: 10/81  
 3. REVISION\_NUMBER: C  
 4. TITLE: AUTOMATED TERMINAL SERVICE (ATS)  
 5. MANAGER: JOSEPH DEMEO  
 6. ORGANIZATION: ARD-232  
 7. TELEPHONE\_NUMBER: 202-426-8340  
 9. REQUIREMENT:

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DEVELOP TECHNICAL SPECIFICATIONS FOR THE AUTOMATED TERMINAL SERVICE (ATS) AND PROCUREMENT OF A PROTOTYPE SYSTEM FOR OPERATIONAL TEST AND EVALUATION.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
M P		CONTRACT AWARD	DATE
M P		TDP	10/85
			4/88

RESEARCH AND TECHNOLOGY  
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 1/06/81

1. PROJECT NUMBER: 041-305-040      2. START DATE: 1/78  
3. REVISION NUMBER: 1  
4. TITLE: WILCOX 585B VOP SYSTEMS PARAMETERS      5. MANAGER: FRANK BASSETT  
6. ORGANIZATION: ARD-310      7. TELEPHONE NUMBER: 202-426-8596  
9. REQUIREMENT: 9550: AAF-410-78-03  
10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

AGREEMENT NUMBER:  
TPD-04-309

## 11. SPECIFIC OBJECTIVES:

NAFES WILL CONDUCT TESTS TO DETERMINE THE MAGNITUDE OF THE GROUND CHECK DUE TO EACH OF THE FOLLOWING FACTORS: A) SLOT ANT; F) THE COUNTERPOISE; C) GONTHOMETER; AND DIVOR TRANSMITTER SYSTEM.

12. WILSON ::

TYPE INDICATOR	DESCRIPTION	FINAL REPORT (WILCOX 585P)
CC		

CURR  
DATE  
2/81

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 \* R E S E A R C H   A N D   T E C H N O L O G Y \*  
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 \*                    T E C H N I C A L   P R O G R A M   D O C U M E N T \*  
 \* \* \* \* \*  
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REPORT DATE: 1/06/81

- 1. PROJECT\_NUMBER: 041-305-060
- 2. START DATE: 6/73
- 3. REVISION\_NUMBER: 2
- 4. TITLE: PROPGATION MODELING
- 5. MANAGER: FRANK BASSETT
- 6. ORGANIZATION: AND-310
- 7. TELEPHONE\_NUMBER: 202-426-8596
- 9. REQUIREMENT: ED PROGRAM PLAN ED-04-01
- 10. PARTICIPATING-DOT/GOVERNMENT-ORGANIZATIONS-AND-AGREEMENT-NUMBERS:  
     ORGANIZATION NAME:  
     ED SATELLITE ANA-120  
     AGREEMENT NUMBER:  
     04-309

11. SPECIFIC OBJECTIVES:  
 TO DEVELOP COMPUTER PROGRAMS WHICH WILL ASSESS SPECIFIC EFFECTS OF VARIOUS TYPES OF REFLECTORS  
 AROUND A VOR OR DOPPLER VOR. THESE WILL THEN BE HANDED OFF TO REGIONAL PERSONNEL TO PERMIT THEM TO  
 USE THESE PROGRAMS. SYRACUSE UNIVERSITY WILL DEVELOP THE PROGRAMS AND NAFEC WILL VERIFY WILL VERIFY  
 THE COMPUTER PREDICTIONS.

12. FILESTONES:

TYPE	DESCRIPTION	CURR
INDICATOR	FINAL REPORT (PHASE III)	DATE
N	COMPUTER PROGRAMS TO AAF (PH III)	7/81
Y		8/81

1. PROJECT NUMBER: 041-305-090      2. START DATE: 6/76      3. REVISION NUMBER: 3  
4. TITLE: VOR SITING CRITERIA UPDATE      5. MANAGER: FRANK BASSETT  
6. ORGANIZATION: ARD-310      7. TELEPHONE NUMBER: 202-426-8596  
9. REQUIREMENT: FAA-ED-04-01 AND AAF LETTER REQUEST  
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:  
NAFEC      NPD-04-309

11. SPECIFIC OBJECTIVES:

NEW DEVELOPMENTS SUCH AS DOUBLE SIDEBAND DOPPLER VOR, STACKED ARRAYS, AND PROPAGATION MODELING WILL BE INCORPORATED INTO THE VOR SITING CRITERIA HANDBOOK. THE WORK WILL BE DONE IN-HOUSE UTILIZING THE OUTPUTS FROM THEIR PROJECTS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
MC S		COMPLETE UPDATE (60K NOT AVAILABLE)	DATE
			6/81

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1. PROJECT NUMBER: 049-307-040

2. START DATE: 2/74

3. REVISION NUMBER: 3
4. TITLE: SECOND GENERATION VCR TAC

5. MANAGER: FRANK BASSETT
6. ORGANIZATION: ARD-310

7. TELEPHONE NUMBER: 202-426-8596
9. REQUIREMENT: JOINT DIRECTOR ASSOC ADMIN & FED PROGRAM PLAN ED-C4-01
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

NAFEC

AGREEMENT NUMBER:

NPD-04-309

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11. SPECIFIC OBJECTIVES:

THE R&D EFFORT HEREIN IS PRIMARILY THAT OF CONTRAPTOR DEV OF A NAFEC TEST BED FOR A REMOTE MAINTENANCE MONITOR SYSTEM(CMS). THIS SYS. WILL BE EXERCISED AT NAFEC TO DERIVE THE PROT SPECIF DATA. IN ADDITION, SENSORS WILL BE INSTALL IN A COMMERCIAL, SOLID STATE VCR TO PERMIT INVESTIGATION OF AUTOMATIC FAULT DIAGNOSIS AND TREND ANALYSIS UTILIZING THE BASIC RMWS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
VC	N	REPORT: VCR RMWS FVAL.	7/81

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1. PROJECT NUMBER: 042-308-010

2. STAFF DATE: 7/76

3. REVISION NUMBER: 4
4. TITLE: U.S. NATIONAL AVIATION STANDARD FOR THE VORTAC SYSTEM

5. MANAGER: FRANK BASSETT
6. ORGANIZATION: AND-31C

7. TELEPHONE NUMBER: 202-426-8596
9. REQUIREMENT: AND-1 LETTER DATED JULY 8, 1976
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

NAFEC

DOD

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

THIS EFFORT IS TO UPDATE ABOVE STND, CONSIS W/PUR, THERECE, TO DEFINE STND & PERF CHARAC NEED'D TO SUP CMCS IN USE OF THE SYS & RADIO FREQS. EMP. RFPV NEED'D W/POSS ALTER WILL BE IDENT THRU SRDS REV OF SYS REQNTS INCLUD. THOSE PERT. TO EXP SERV VOL (ESV) AND COMPAT. AS NEED'D, AN FAA ADHOC GRP WILL STUDY ALTERN. AND PART. IN DEVELOP. OF REVIS'D STAN. COOPD. WILL BE IN ACCORD. W/ ESTAB. REQNTS.

12. MILESTONES:

TYPE	DESCRIPTION	CURR
INDICATOR		DATE
N	ISS ADVIS CIR AND ORDER	4/81
NC	SOLID STATE TACAN ANTENNA TESTS (SPT. REG. INSTL.)	7/81

REPORT DATE: 1/06/81

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3. REVISION NUMBER: 5  
5. MANAGER: GEORGE QUINN

2. START DATE: 6/75

1. PROJECT NUMBER: 043-304-010

4. TITLE: VLF/OMEGA/DIFFERENTIAL OMEGA

6. ORGANIZATION: AND-310 7. TELEPHONE NUMBER: 202-426-5896

9. REQUIREMENT: NATIONAL PLAN-NAV, 11/77 LETTER, AFS-1, 11/76

10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
NAVAL OCEAN SYS CTR (5/77) FA77WAI735  
FAA ALASKAN REG (5-79) RD/AL79226  
GOVT OF CANADA, AIR TRANSPORT ADMIN 5/79

11. SPECIFIC OBJECTIVES:

DETERMINE THE SUITABILITY OF OMEGA/VLF NAV AS A SUPPLEMENT TO VOR-DME IN REMOTE & OFFSHORE AREAS. SPECIFICALLY, EVAL THE PERFF OF DIFF OMEGA IN THE ALASKA-YUKON AREA TOWARD MEETING NAV REQMTS, DEV TECH FOR USE AS THE BASIS OF A NOTAM SERVICE AND EXAMINE THE METHODS TO REDUCE VLF AND LF BAND NOISE.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
N		RPT: OMEGA/VLF/1F NOISE REDUCTION	DATE
N		RPT: OMEGA/VLF NOTAM MONITOR EVALUATION	11/80
N		REPORT: NOISE CANCELLATION ANTENNA EVAL	11/81
N		RPT: OMEGA/DIFF. OMEGA ASSESS. IN ALASKA	3/81
N		AWARD CONTRACT FOR OMEGA/VLF SIMULATOR	7/82
N		REPORT: OMEGA/VLF SIGNAL SIMULATOR EVAL	11/84

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REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 043-311-010      2. START\_DATE: 12/76      3. REVISION\_NUMBER: 2  
 4. TITLE: OCEANIC NAVIGATION SYSTEMS, OMEGA  
 5. MANAGER: GEORGE QUINN  
 6. ORGANIZATION: ARD-310      7. TELEPHONE\_NUMBER: 202-426-8596  
 9. REQUIREMENT: LETTER, AFS-1 TO ARD-1, 11-23-76  
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DETERMINE WHETHER OMEGA SIGNALS PROVIDE A CONTINUING AND RELIABLE MEANS OF NAVIGATION ON  
 WORLDWIDE OCEANIC ROUTE STRUCTURES. ALSO, PROVIDE A MORE CONTROLLED MEANS THAN FLIGHT TESTING FOR  
 THE DETERMINATION OF AN ACCEPTABLE AVIONICS PERFORMANCE.

12. MILESTONES:

TYPE	CURR
INDICATOR	DATE
NC	11/82

REPORT: OMEGA DATA BANK

REPORT DATE: 1/06/81

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 \* R I E S F A F C H A N T T E C H N O L O G Y \*  
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1. PROJECT NUMBER: 045-390-04H 2. START DATE: 6/78 3. REVISION NUMBER: 2  
 4. TITLE: HELICOPTER IFR OPERATION EVALUATION 5. MANAGER: JAMES NELSON

6. ORGANIZATION: ARD-330 7. TELEPHONE NUMBER: 202-426-3406

9. REQUIREMENT: HELICOPTER OPTS DEVELOP PLAN, FAA-ED-04-2

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 FAA TECHNICAL CENTER TPD 04-150  
 AERONAUTICAL CENTER (AFO-500)  
 TSC REV 1A O-A (9/80) PPA FA191

11. SPECIFIC OBJECTIVES:

DEVELOP IMPROVED SYSTEMS AND PROCEDURES FOR IFR OPERATIONS OF HELICOPTERS; PROVIDE DATA FOR OPER. SEPS. TO ESTAB. CRITERIA FOR USING LORAN-C, GPS FOR NAVIGATION AND TRAFFIC CONTROL OF HELICOPTERS; TO ESTAB. NEW CRITERIA FOR HELICOPTER TERMINAL APPROACH PROCEDURES USING MLS, AIRBORNE RADAR, AND CONVENTIONAL AIDS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
		LORAN-C DATA OR APPROVAL CRITERIA, RPT	6/80
		NORTHEAST CORRIDOR EVAL, REPORT	3/81
		LORAN FLT FOLLOWING SYS DESCRIPTION	6/81
		DATA OR INITIAL RVF OF HELO TERPS RPT	6/81
		MLS HELO STEP EVALUATION	3/82
		LOFF EVAL AND ANALYSIS COMP	4/82
		LOW AIR SPEED EVAL	6/83
		FELO GPS RCVR EVAL COMP	3/85
		EVAL DIFF GPS	3/85
		FADI CERT CRITERIA	6/86
		RECOMMEND IFR HELIPORT LIGHT STANDARDS	6/82
		IFR CERT GUIDELINES FOR HELICOPTERS	6/84

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 REPORT DATE: 1/06/81

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 1. PROJECT\_NUMBER: 047-350-010 2. START\_DATE: 8/79 3. REVISION\_NUMBER: 1  
 4. TITLE: AIR NAVIGATION ERROR BUDGET 5. MANAGER: PAUL RICH  
 6. ORGANIZATION: AFD-310 7. TELEPHONE\_NUMBER: 202-426-8596  
 9. REQUIREMENT: FAA ED-04-01  
 10. PARTICIPATING\_DOT/GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:  
 ORGANIZATION NAME: AGREEMENT NUMBER:  
 NAFEC NPD 04-207

11. SPECIFIC OBJECTIVES:

DEVELOP ERROR BUDGET FOR DOT NAVIGATION POLICY DECISION.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
A		RPT: COCKPIT SIMULATION RESULTS	DATE
M		RPT: FLIGHT TEST RESULTS (LCRAN-C)	6/82
M		RPT: FINAL NAVIGATION ERROR BUDGET	7/81
M		MLS ATC OPERATIONAL PROCEDURES	4/85
M		ADV MLS AVIONICS STANDARDS	9/83
			9/85



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3. REVISION\_NUMBER: 1

7. TELEPHONE NUMBER: 202-426-8596

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

AGREEMENT NUMBER:  
NPD 04-207

## 11. SPECIFIC OBJECTIVES:

NAVIGATION MANAGEMENT FOR EOT NAVIGATION POLICY DECISION.

12. MILITARY:

CURP  
DATE  
6/82 9/83

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REPORT DATE: 1/06/81

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1. PROJECT NUMBER: 047-350-030 2. START DATE: 10/78 3. REVISION NUMBER: 0
4. TITLE: PRECISION DME (PDME) DEVELOPMENT 5. MANAGER: FRANK BASSETT

6. ORGANIZATION: ARD-310 7. TELEPHONE NUMBER: 202-426-8596

9. REQUIREMENT: NAT'L PLAN FOR DFV OF MLS & NAT'L PLAN JUN'78 UPDATE

10. PARTICIPATING DCI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 NAPEC  
 ELECTNAG.COMPAT.ANAL.CENTER (ECAC)

11. SPECIFIC OBJECTIVES:

DEVELOP STANDARDS AND PERFORM. SPEC. FOR AN L-BAND PDME FOR CTOL MLS APPLCS. (SERV.LEVEL A) AND FOR STOL/VTOL AND FUTURE CTOL MLSAPPLICATIONS (SERVICE LEVEL B) WHILE RETAINING COMPATABILITY AND INTEROPERABILITY WITH EXISTING ICAO ANNEX 10 STANDARDS.

12. MILESTONES:

TYPE	INDICATION	DESCRIPTION	CURR DATE
M		REPORT: VOR/DME LOW ALT. COVERAGE	6/82
M		REPORT: DAS INTERIM ASSESSMENT (MLS 360 AZIMUTH)	1/82
M		RPT: PDME DEVELOPMENT FINAL EVAL.	7/84
MCP		REPORT: DAS EVALUATION	3/86
M		AWARD CONTRACT FOR PDME DEVELOPMENT	1/83
M		PDME DELIVERY	3/83

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1. PROJECT NUMBER: 048-312-010      2. START DATE: 6/75      3. REVISION NUMBER: 4
4. TITLE: OPERATIONAL USE OF LORAN-C IN AVIATION
6. ORGANIZATION: ARD-310      7. TELEPHONE NUMBER: 202-426-8596      5. MANAGER: GEORGE QUINN
9. REQUIREMENT: NATIONAL PLAN FOR NAVIGATION, NOVEMBER 1977
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: U.S. SMALL BUSINESS ADMINISTRATION      AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DETERMINE WHETHER LORAN-C IS AN ACCEPTABLE REPLACEMENT FOR VOP-DME AS THE PRIMARY NAVIGATION AID IN THE NATIONAL AIRSPACE SYSTEM (NAS).

12. MILESTONES:

INDICATOR	TYPE	DESCRIPTION	CURR DATE
MC	N	RPT: LORAN-C FLT. EVAL.-WEST COAST	3/80
MC	N	RPT: LORAN-C MOUNTAINOUS AREA TESTS	9/82
MC	N	REPORT: LORAN-C SIGNAL SIMULATOR EVALUATION	4/82
MC	N	REPORT: LORAN-C ANTENNAS EVAL.	10/81
MC	N	REPORT: LORAN-C IMPACT ON FAA OPERATIONS	4/82
MC	N	REPORT: LORAN-C SIGNAL STABILITY ANALYSIS	6/82
MC	N	REPORT: LORAN-C NOTAM MONITOR EVALUATION	10/82
MC	N	REPORT: LORAN-C SIGNAL COVERAGE STUDY	6/82
MC	N	REPORT: LORAN-C GEN. AV. RCVP INT. EVAL	11/82
MC	S	LORAN-C AS CANDIDATE FOR POST-1995 SYSTEM	12/82
MC	N	REPORT: LORAN-C GEN. AV. PCVF FVAL.	5/83
MC	N	REPORT: LORAN-C FLIGHT INSPEC. EVAL.	12/84
MCP	N	REPORT: DIFFERENTIAL LORAN-C EVALUATION	8/86
M	N	AWARD CONTRACT LORAN C RECEIVER	9/80
M	N	DELIVER LORAN C SIGNAL MONITOR	3/81
M	N	LORAN C FLIGHT INSPECTION FCPT DEL	4/83
M	N	PROTOTYPE DIFF LORAN C FCPT DELIVERY	8/84

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REPORT DATE: 1/06/81

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1. PROJECT\_NUMBER: 049-330-010
2. START\_DATE: 7/80
3. REVISION\_NUMBER: 7
4. TITLE: GPS PROTOTYPE LOW-COST RECEIVER
5. MANAGER: DOUG RLYTHF
6. ORGANIZATION: ARD-31C
7. TELEPHONE\_NUMBER: 202-426-9240
9. REQUIREMENT: NATIONAL PLAN FOR NAVIGATION, NOV.'77, FD PROG.PLAN 04-01
10. PARTICIPATING\_DOT/GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:

# 11. SPECIFIC OBJECTIVES:

DEVELOP A LOW-COST (I.E. \$3,000 IN 1978 DOLLARS) GPS RECEIVER SUITABLE FOR HIGH VOLUME PRODUCTION.

# 12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURE
M P		AWARD CONTRACT FOR PROTOTYPE GPS LOW COST RECEIVER	DATE 3/83
MCP N		REPORT: GPS PROTOTYPE LOW COST RECEIVER EVAL.	6/85

REPORT DATE: 1/06/81

4. TITLE: GPS FLIGHT EVALUATION

7. TELEPHONE NUMBER: 202-426-9240

9. REQUIREMENT: FEDERAL RADIONAVIGATION PLAN

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:  
FAA TECHNICAL CENTER

AGREEMENT NUMBER:  
TPD 04-109

### 11. SPECIFIC OBJECTIVES:

DETERMINE THE OPERATIONAL SUITABILITY OF GPS IN TERMS OF AVIONICS COSTS, OPERATIONAL USE ACCURACY, THE COVERAGE, AND SIGNAL ACQUISITION FOR ENROUTE, TERMINAL AND NON-PRECISION APPROACH IN SUPPORT OF THE 1982 FAA RECOMMENDATION ON THE FUTURE NAVIGATION SYSTEM/MIX. OPERATIONAL EVALUATION OF LOW COST AVIONICS IN 1983-1985 PERIOD.

## 12. MILESTONES:

CURR	DATE	TYPE	INDICATOR	DESCRIPTION
8/79		M		FAA/U.S. AIR FORCE M.O.A. (Z-SET RECEIVER LOAN)
4/80		M		DELIVER GPS Z SET RECEIVER TO FAA TECHNICAL CENTER
4/82		M		REPORT: GPS "Z" SET EXPLORATORY OPERATIONAL TESTS
6/85		M		REPORT: GPS FLIGHT EVALUATION

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REPORT DATE: 1/06/81

3. REVISION NUMBER: 0

2. START DATE: 0/00

1. PROJECT NUMBER: 049-330-030

4. TITLE: GPS IMPACT ON FAA OPERATIONS

5. MANAGER: DOUG BLYTHE

6. ORGANIZATION: A&D-310

7. TELEPHONE NUMBER: 202-426-9240

9. REQUIREMENT: FEDERAL RADIONAVIGATION PLAN

10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DETERMINE THE OVERALL IMPACT OF REPLACING VOR/DME WITH GPS ON ATCPROCEDURES, CHARTING, NOTAMS,  
 FLIGHT INSPECTION, ETC. IN SUPPORT OF THE 1982 FAA RECOMMENDATION ON THE FUTURE NAVIGATION SYSTEM/HIX

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
W		REPORT: GPS IMPACT ON FAA OPERATIONS	DATE
MC	S	GPS AS CANDIDATE FOR POST-1995 SYSTEM	4/82
			12/82



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TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 1/06/81

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1. PROJECT NUMBER: 052-241-010 2. START DATE: 6/75 3. REVISION NUMBER: 1

4. TITLE: DEVELOP FULL BCAS SYSTEM

6. ORGANIZATION: ARD-243

7. TELEPHONE NUMBER: 202-426-9382

9. REQUIREMENT: EXCOM MEETING MINUTES E7 (1975)

5. MANAGER: OWEN MCINTIRE

10. PARTICIPATING DCT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
FAA TECHNICAL CENTER NPT 05-172  
TSC PPA FA-040

11. SPECIFIC OBJECTIVES:

TO DEVELOP A BEACON COLLISION AVOIDANCE SYSTEM (PCAS) THAT PROVIDES THE USER PROTECTION AGAINST AIRCRAFT EQUIPPED WITH ATCRBS OR DABS TRANSPONDERS WITH ALTITUDE ENCODERS. THE PCAS WILL OPERATE COMPATIBLY WITH CURRENT AND PLANNED ATC EQUIPMENT AND WILL MEET THE FULL RANGE OF USER NEEDS AND REQUIREMENTS. THE OBJECTIVE WILL BE ACCOMPLISHED BY IN-HOUSE AND CONTRACT EFFORTS, INCLUDING SIMULATIONS, ANALYSIS AND HARDWARE DEVELOPMENT AND EVALUATION.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUPR	DATE
MC		FULL PCAS MULTI-CONTRACT AWARD		1/81
M		FULL BCAS DESIGN DEFINITION DELIVERED		
MC		PRELIMINARY FULL PCAS REPORT		9/83
M		FULL PCAS (3) ENGR MODEL TASK II DELIVERED		2/83
MC	N	EVAL ENGR MODEL, FULL PCAS FINAL REPORT		9/83
V		FULL BCAS (20) PROTOTYPE MODEL DELIVERED		8/84
VC	N	FULL BCAS FINAL REPORT		5/85



REPORT DATE: 1/06/81

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1. PROJECT NUMBER: 052-242-010 2. START DATE: 6/75 3. REVISION NUMBER: 1  
 4. TITLE: DEVELOP ACTIVE BCAS SYSTEM 5. MANAGER: WILLIAM HYLAND

6. ORGANIZATION: ARD-242 7. TELEPHONE NUMBER: 202-426-0986

9. REQUIREMENT: EXCOM MEETING MINUTES F7 (1975)

10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 FAA TECHNICAL CENTER TPD 05-172  
 ECAC 77MAI-080

11. SPECIFIC OBJECTIVES:

DEVELOP AN ACTIVE BEACON COLLISION AVOIDANCE SYSTEM (BCAS) THAT WILL PROVIDE PROTECTION AGAINST AIRCRAFT EQUIPPED WITH ATCRBS AND DABS TRANSPONDERS IN LOW TO MEDIUM DENSITY AIRPORTS, AND BOTH WITHIN AND OUTSIDE ATC SURVEILLANCE.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MC		DRAFT NATIONAL STANDARD ISSUED	12/78
M		LL ENGINEERING MODEL DELIVERED	2/80
M	S	INDUSTRY PROTOTYPES, AVIONICS AWARDED	3/80
M		PUBLISH FINAL NATIONAL STANDARD IN FED REGISTEP	10/80
M		ACT BCAS DIRECTIONAL ANTENNA DELIVERED	3/81
M		PROTOTYPE MODEL DELIVERED	3/81
MC		RBX TDF DELIVERED	2/81
MC		G/A BCAS ENGR MODEL TESTS COMPLETE	4/81
M		OPERATIONAL TESTS COMPLETED	1/82

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REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 062-222-010      2. START DATE: 11/77      3. REVISION\_NUMBER: 3
4. TITLE: DEVELOP SMALL VOICE SWITCHING SYSTEM (SVSS)
5. MANAGER: CHARLES LEAM
6. ORGANIZATION: ASD-220
7. TELEPHONE\_NUMBER: 202-426-8500
9. REQUIREMENT: 9550 AAF-75-17
10. PARTICIPATING\_DOT\_GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:
- ORGANIZATION NAME:      AGREEMENT NUMBER:  
 FPA TECHNICAL CENTER      TFC 06-361

11. SPECIFIC OBJECTIVES:

PROVIDE AN ENGINEERING MODEL FOR THE OF COMMUNICATION SYSTEM FOR SPALL TOWERS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURF
M	N	CONTRACT AWARD	DATE
M	N	ENGINEERING MODEL DEVELOPY	1/80
M	N	ENGR. MODEL TEE COMPLETF	6/81
M	N	TECH DATA PACKAGE TO AAF	1/82
M	N	COMPLETION REPORT	4/82
			6/82

REPORT DATE: 1/06/81

2. START DATE: 3/78

4. TITLE: VOICE SWITCHING AND CONTROL SYSTEM (VSCS)

6. ORGANIZATION: APD-202

9. REQUIREMENT: SYS REQ GRP 03/78. CPT REQ PROVIDED BY AAT 10-10-78.

10. PARTICIPATING DCI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: \_\_\_\_\_  
AGREEMENT NUMBER: \_\_\_\_\_

### 11. SPECIFIC OBJECTIVES:

TO DESIGN, DEVELOP, TEST AN INTEGRATED SWITCHING AND CONTROL SYSTEM FOR BOTH AIR/GROUND AND GROUND/GROUND VOICE COMMUNICATIONS SUITABLE FOR USE IN ENROUTE CENTERS, LARGE AND SMALL TERMINALS AND FLIGHT SERVICE STATIONS. THE OUTPUT OF THIS PROGRAM WILL BE A TECHNICAL DATA PACKAGE(S) SUITABLE OR USE BY AAF FOR PRODUCTION.

## 2. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MC	MC	ENGINEERING REQUIREMENTS DEVELOPED	11/79
MC	MC	ACQUISITION PAPER SUBMITTED TO TSARC	12/80
MC	MC	REP ISSUED FOR DEVELOPMENT	3/81
MC	N	CONTRACT AWARD VSCS (1ST CF SERIES)	4/82
MC	S	TDP FOR TONE CONTROL	4/83
MC	S	TD <sub>4</sub> FOR PSS SUBSYSTEM	1/84
MC	MC	TD <sub>2</sub> FOR TEPHINAL SUBSYSTEM	10/84
MC	MC	TDP FOR ENROUTE SUBSYSTEM	10/85
MC	MC	TDP FOR VSCS SYSTPY CONTROL SUBSYSTEM	10/85

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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 063-221-010  
 2. START DATE: 11/73  
 3. REVISION NUMBER: 3  
 4. TITLE: NATIONAL AIRSPACE DATA INTERCHANGE NETWORK (NADIN)  
 5. MANAGER: CHARLES LARUE  
 6. ORGANIZATION: ARD-221  
 7. TELEPHONE NUMBER: 202-425-9354

9. REQUIREMENT: AFC LTP TO AAF-1 DTD 9-17-75

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DEVELOP A SYSTEM DESIGN AND SPECIFICATION OF ENHANCEMENT TO THE INITIAL NADIN. PROVIDE ENGINEERING AND CONSULTING SERVICE TO AAF AS REQUESTED DURING THE PROCUREMENT AND DEPLOYMENT OF THE INITIAL NADIN.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MC	TDP TO AAF	WCD 11 FSS	12/80
MC	TDP TO AAF	EAL INITIAL ENHANCEMENTS	6/81
MC	TDP TO AAF	FOR PWS	6/82
MC	TDP TO AAF	FOR FLCW CONTROL	6/83
MC	TDP TO AAF	FOR CPU B TERMINAL (NAS & NAS-APTS)	9/83
MC	STDY RPT-NADIN	EXPANSION TO SUPT ATC CPU REPLACMT	6/82

REPORT DATE: 1/06/81

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T E C H N I C A L   P R O G R A M   D O C U M E N T  
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3. REVISION NUMBER: 1  
5. MANAGER: JACK SCHROEDER

2. START DATE: 6/80

1. PROJECT NUMBER: 063-221-02C

4. TITLE: ATC COMPUTER DATA COMMUNICATION SUPPORT

6. ORGANIZATION: ARD-221

7. TELEPHONE NUMBER: 202-426-9354

9. REQUIREMENT: ATC COMPUTER REPLACEMENT PROGRAM

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:  
FAM TECHNICAL CENTER  
ARD-100, REQ. 123-132-01C

AGREEMENT NUMBER:  
THD  
TBD

11. SPECIFIC OBJECTIVES:

IDENTIFY & BOUND THE DIFFERENT FUNCTIONAL DATA COMMUNICATIONS REQUIREMENTS ASSOCIATED WITH  
ALTERNATIVE FUTURE WAS ENVIRONMENTS RESULTING FROM THE ATC COMPUTER REPLACEMENT (9020R) PROGRAM.  
DEVELOP AND ASSESS DESIGN ALTERNATIVES AND DATA COMMUNICATION SYSTEM ARCHITECTURES IN SUPPORT OF THE  
IDENTIFIED REQUIREMENTS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION
PCP		IMPACT ON MADDIN OF 9020 DESIGN ALTERNATIVES
PCP		TDP FOR 9020R DATA COM SYSTEM

CURE  
DATE  
4/83  
6/86

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 \* RESEARCH AND TECHNOLOGY \*  
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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 064-221-020      2. START DATE: 10/78      3. REVISION NUMBER: 2
4. TITLE: EMERG LOCATOR TRANSMITTER (ELT)/SEARCH & RESCUE (SAR) SUPPORT      5. MANAGER: MARTIN WATCHIOPLSKY
6. ORGANIZATION: ARD-211      7. TELEPHONE NUMBER: 202-426-6500
9. REQUIREMENT: 9550-AFS-100-78-162 , AED-1 DIRECTION
10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: NASA  
 AGREEMENT NUMBER: 79WAI-002

11. SPECIFIC OBJECTIVES:

AN INTERAGENCY AGREEMENT WITH NASA IS PROVIDING REQUIRED CONTRACTOR SUPPORT IN ANALYSIS OF CURRENT ELT PROBLEMS, DEVELOPING GUIDANCE FOR PROPER INSTALLATION TECHNIQUES AND IMPROVED SYSTEM HARDWARE COMPONENTS. ADDITIONAL CONTRACTOR SUPPORT WILL BE REQUIRED TO DEVELOP POSSIBLE INSPECTION/TEST PARAMETERS TO ASSURE PROPER OPERATION OF INSTALLED ELTS AND TO TEST PRODUCTION SAMPLES OF SECOND GENERATION IMPROVED ELTS FOR TSO COMPLIANCE AS THEY COME ON THE MARKET.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
P		IA WITH NASA SIGNED	12/78
P		REPORT ON INSTALLATION GUIDANCE	8/82
M		REPORT ON REMOTE COCKPIT MONITOR	12/82
P		REPORT ON CRASH SENSOR IMPROVEMENT	12/82
P		REPORT ON ELT INSPECTION PARAMETERS	1/85
M		REPORT ON TCE OF PRODUCTION SAMPLES	12/85

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 \* RESEARCH AND TECHNOLOGY \*  
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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 071-313-010      2. START DATE: 1/72      3. REVISION NUMBER: 5
4. TITLE: ILS SUSTAINING ENGINEERING      5. MANAGER: CARL PETERSON
6. ORGANIZATION: ARD-320      7. TELEPHONE NUMBER: 202-426-9240
9. REQUIREMENT: 9550 REQUESTS; AAF-420/ARD-320 AGREEMENTS; F&E EUDG REQUEST
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:  
 FFA TECHNICAL CENTER  
 REGIONS

11. SPECIFIC OBJECTIVES:

DEVELOP EQUIPMENTS, TECHNIQUES, STANDARDS WHERE NEEDED TO ENHANCE THE CONVENTIONAL ILS PERFORMANCE CAPABILITY AND RELIABILITY UNDER ALL CONDITION OF SITING AND WEATHER. RESPOND TO AND TAKE ACTION RELATIVE TO SPECIFIC FIELD PROBLEMS AS REQUESTED.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
M	ITEM 1 TDP TO AAF		DATE
X	UPSLOPE ANTEN. TDP TO AAF, AS REQUIRED		1/81
X	FFM TDP TO AAF		11/81
X	FFM GS TDP TO AAF		4/82
			4/83

REPORT DATE: 1/06/81

- ORGANIZATION NAME:  
NASA/AMES RESEARCH CENTER  
FAA TECHNICAL CENTER

DETERMINATION OF THE SAFETY CONTRIBUTION OF HUD TO LARGE TURBO-JET OPERATIONS AND FLIGHT TEST OF HUD IN AGENCY D-727 AIRCRAFT.

INDICATOR	TYPE	DESCRIPTION	CURR
MC N		SYSTEM INTEG INTO FLT TEST ACFT	DATE
		FINAL SIM REPORT (NASA)	2/84
MC S		FINAL FLT TEST REPORT (NAFFC)	8/80
M M		CERTIFICATION GUIDELINES FOR HUD	8/81
M M		CERTIFICATION GUIDELINES FOR DUAL HUD	6/82
M M		REPORT ON ADVANCED HUD CONCEPTS	12/82
M P		CERTIFICATION GUIDELINES FOR ADV. HUD	6/83
			4/85



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 \* RESEARCH AND TECHNOLOGY \*  
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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 073-330-010 2. START DATE: 0/00 3. REVISION NUMBER: 0

4. TITLE: COCKPIT INFO CONTROLS AND DISPLAYS

5. MANAGER:

6. ORGANIZATION: ARD-300

7. TELEPHONE NUMBER:

9. REQUIREMENT:

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

ASSESS IMPACT OF DIGITAL AVIONICS ON ADVANCED FLIGHT AND ENERGY MANAGEMENT CONCEPTS AND TO PROVIDE IMPROVED AIRCRAFT GUIDANCE.

12. MILESTONES:

TYPE	DESCRIPTION	CURR
INDICATOR	DEVELOP CERT CRIT FOR FLT MGMT SYS	DATE
M P		8/84

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REPORT DATE: 1/14/81

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- 1. PROJECT\_NUMBER: 075-325-010      2. START\_DATE: 7/71      3. REVISION\_NUMBER: 3
  - 4. TITLE: DEVELOP MICROWAVE LANDING SYSTEM (MLS)
  - 6. ORGANIZATION: ARD-320      7. TELEPHONE\_NUMBER: 202-426-2072      5. MANAGER: DOUGLAS VICKERS
  - 9. REQUIREMENT: NAT'L PLAN DEV.OF MLS(JUL'71) AND JUNE 1978 UPDATE
  - 10. PARTICIPATING\_DOT/GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:  
 DOD(USN,USN,USAF) AND NASA  
 FAA TECHNICAL CENTER  
 TSC

11. SPECIFIC OBJECTIVES:

DEVELOP A NEW COMMON CIVIL/MILITARY APPROACH AND LANDING SYSTEM THAT WILL MEET THE FULL RANGE OF  
 USER OPERATIONAL REQUIREMENTS WELL INTO THE FUTURE AND BE SELECTED FOR INTERNATIONAL STANDARDIZATION  
 AS A REPLACEMENT FOR THE CURRENT INSTRUMENT LANDING SYSTEM (ILS).

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
M		CONTRACT AWARD FOR EXPND.CONF.DSGN.STUDY	DATE
M		CONTRACT AWARD FOR LSI(CHIP)DEVELOPMENT	2/81
VC S		TDP HANDOFF FOR BASIC & SM.COMMUN.CONFIG.	9/80
VC S		TDP HANDOFF FOR EXPANDED CONFIGURATION	4/81
M		DELIVERY OF LSI PROTC.RCVR. & DEM.PCKGF.	4/82
M		ADVANCED MLS AVIONICS STANDARDS	3/82
M		COMPLETE DESIGN STUDY FOR EXPANDED SYS	9/85
			2/82

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- 1. PROJECT NUMBER: 076-311-010      2. START DATE: 1/79      3. REVISION NUMBER: 7
  - 4. TITLE: AIRCRAFT ALERT SYSTEMS STANDARDIZATION STUDIES
  - 5. MANAGER: JOHN F. HENDRICKSON
  - 6. ORGANIZATION: ARL-340      7. TELEPHONE NUMBER: 202-426-8605
  - 9. REQUIREMENT: LETTER AFS-1 TO ASD-1 DATED 10/09/74
  - 10. PARTICIPATING JOINT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

THE END ITPM, STDY RPTS. WILL BE DELIV. TO AFO-1 BY 3/81 TO SUPP. NEW AIRCRAFT CERTIFICATION RQMTS. STUDY RPTS. CONTAINING RECOMM. & CONCLU. FOR GUIDELINES FOR STANDARDIZATION OF COCKPIT ALERT AND WARNING & MONITORING SYS. WILL BE COMPLETED USING INDUSTRY CONTRACT SUPPORT. CREW ACTIVITY LEVEL AND WORKLOAD WILL BE CONSIDERED FOR THE PRIORITIZATION.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M	CONTRACT AWARD		1/79
MC S	FIN RPT - DEMO STANDZD ALERT SYS		3/81
M	COMPLETE FEASIBILITY STUDY		9/81
M	ISSUE STANDARD GUIDELINES		10/81

REPORT DATE: 1/14/81

1. PROJECT NUMBER: 076-312-010
2. START DATE: 0/00
3. REVISION NUMBER: 0
4. TITLE: AIRBORNE SYSTEMS-COCKPIT INTERFACE/SYSTEMS
5. MANAGER: ROGER NEELAND
6. ORGANIZATION: ARD-340
7. TELEPHONE NUMBER: 202-426-8605

**9. REQUIREMENT:**

10. PARTICIPATING DCT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

AGREEMENT NUMBER:

### 11. SPECIFIC OBJECTIVES:

## 12. MILESTONES:

INDICATOR	TYPE	DESCRIPTION	CURR DATE
N		DATA LINK COCKPIT REGT DEFINED	6/82
N		EVALUATION OF WX IN COCKPIT - RPT	8/82
N		COCKPIT KEYBOARD STANDARDIZATION	10/82
N		FLIGHT DECK INFO COORD - VS. PHOTO DESIGN	3/83

DESCRIPTION  
DATA LINK COCKPIT REQ'D DEFINED  
EVALUATION OF WK IN COCKPIT - RPT  
COCKPIT KEYBOARD STANDARDIZATION  
FLIGHT DECK INFO CODED - VS PHOTO DESIGN

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REPORT DATE: 1/14/81

1. PROJECT NUMBER: 076-320-010 2. START DATE: 3/79 3. REVISION NUMBER: 0  
 4. TITLE: MLS SERVICE TEST AND EVALUATION PROGRAM (STEP) 5. MANAGER: SEYMOUR EVERETT  
 6. ORGANIZATION: ASD-320 7. TELEPHONE NUMBER: 202-426-2072  
 9. REQUIREMENT: STEP PROGRAM 11-30-78 AND MLS TRANSITION PLAN - 4-9-79  
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGRFEMENT NUMBER:  
 AAF, AFG, AAT, ALG, ASP  
 REGIONS  
 FAA TECHNICAL CENTER

11. SPECIFIC OBJECTIVES:

1. DEMONSTRATE CAPABIL. AND BENEFITS OF MLS TO FAA OPS AND USERS. 2. DEVELOP AND VALIDATE OPERATIONAL STANDARDS AND PROCEDURES TO EASE TRANSITION FROM OLD PHASE TO IMPLEMENTATION PHASE.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUER DATE
	PH I	DCA Rwy 18 INSTALLATION COMPLETE	3/79
	PH I	PHY Rwy 17 INSTALLATION COMPLETE	4/80
	PH I	AIRBORNE RECEIVER CONTRACT AWARD	7/80
	PH I	DCA Rwy 13 INSTALLATION COMPLETE	10/80
	PH I	4TH SITE INSTALLATION COMPLETE	4/81
	PH II	CONT AWD 0° BASIC GROUND EQUIP	6/81
	PH I	COMPLETE PH I EVALUATION & REPTS.	9/83
MC S	PH II	COMP DEL/INST BASIC GND EQUIP	8/82
MC S	PH II	COMPLETE PH II EVAL. AND REPORTS	9/83
MC	COMPLETE	FLIGHT SIM & TESTS STEP PH II	4/85
K P	COMP	INSTALL & VERIF MLS IN LARGE JET AC	4/84
M P	COMPLETE	OPERATIONAL EVAL PH II	9/83
P	MLS	- ATC OPERATIONAL PROCEDURES	9/83
P		SOLID STATE MLS FWR SOURCE, PROD SPECS	9/83

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REPORT DATE: 1/14/81

1. PROJECT NUMBER: 077-330-010 2. START DATE: 1/79 3. REVISION NUMBER: 2  
 4. TITLE: FLIGHT DECK INFORMATION COORDINATION 5. MANAGER: ROGER NEELAND

6. ORGANIZATION: ARD-340 7. TELEPHONE NUMBER: 202-426-8605

9. REQUIREMENT: ECD PROGRAM PLAN

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

TO PROVIDE AFS AND AAT WITH COCKPIT INFORMATION SYSTEMS DESIGN CRITERIA TO BE INTRODUCED INTO THE REGULATORY ENVIRONMENT.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
B		COCKPIT INFO RMTS STUDY CONTRACT	DATE 9/79
F		HANDOFF TO OPERATING SERVICES	3/81
WCS		FINAL REPORT	3/81

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REPORT DATE: 1/06/81

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1. PROJECT NUMBER: 077-340-010
  2. START DATE: 6/80
  3. REVISION NUMBER: 0
  4. TITLE: PILOT FACTORS (WORKLOAD MEASUREMENT)
  5. MANAGER: J. PARK
  6. ORGANIZATION: AED-340
  7. TELEPHONE NUMBER: 202-426-8605
  9. REQUIREMENT: SUPPORT FOR ADMINISTRATORS HUMAN FACTORS PROGRAM
  10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 AF SYST CMD/ASD/AF FLT DYN LAB IAA DCT-FA70WAI-173  
 WRIGHT STATE UNIV./AEROSPACE MEDICINE CONTR.F33C15-80-K-3627

# 11. SPECIFIC OBJECTIVES:

THE OBJECTIVE OF THIS INITIAL PROGRAM IS TO DOCUMENT AIRCRAFT WORKLOAD TECHNIQUES. THIS PROG HAS 3 PHASES. TASK 1 WILL CATALOG SUCCESSFULLY APPLIED MEASURES OF WORKLOAD IN AIRCRAFT CERTIFICATION. TASK 2 WILL DOCUMENT MEASURES NOW AVAILABLE AND READY FOR APPLICATION. TASK 3 DELINEATES MEASURES THAT EXIST IN CONCEPT, BUT NEED FURTHER RESEARCH AND DEVELOPMENT FOR REDUCTION TO PRACTICE.

# 12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUFR DATE
N	H	WORKLOAD MEAS TECH USED FOR CERTIFICATION	1/81
M	H	WORKLOAD MEAS TECH (UNPROVEN)	6/81
M	H	WORKLOAD MEAS TECH FOR FUTURE CERTIFICATION	9/81

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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 081-431-010 2. START DATE: 6/73 3. REVISION NUMBER: 0

4. TITLE: CRASH FIRE RESCUE EQUIPMENT/AGENTS

6. ORGANIZATION: ARD-500

7. TELEPHONE NUMBER:

9. REQUIREMENT:

5. MANAGER:

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

THE OBJECTIVE OF THIS PROJECT IS TO DETERMINE THE ABILITY OF NEW FORMULATIONS OF FIREFIGHTING EQUIPMENT AND FOAM AGENTS TO CONTROL AND EXTINGUISH FULL SCALE FUEL SPILL POOL FIRES.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M		ESTAB MIN CFR ROOMS AT CIVIL AND MIL APPTS	9/60
M		EVAL ON-BOARD FOAM/WATER ACFT CAB FIRE EXTING SYS	9/80
M		TEE STATE OF ART FIRE FIGHTING AGENTS	9/82
M		CFR REQUIREMENTS DEFINED	9/82
M		COMPLETE TEST BED INSTALLATION	9/82
M		FEASIBILITY OF SPRINKLER SYS FED BY CFR	8/83
M		RECOMMENDATION FOR CFR TRAINING ROOMS	12/83



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* T E C H N I C A L P R O G R A M D O C U M E N T
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REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 082-420-010  
2. START\_DATE: 6/74  
3. REVISION\_NUMBER: 0  
4. TITLE: ASPHALT PAVEMENT  
5. MANAGER: H. TOMITA  
6. ORGANIZATION: ARD-530  
7. TELEPHONE\_NUMBER: 202-426-9396  
9. REQUIREMENT:

10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: \_\_\_\_\_

**11. SPECIFIC OBJECTIVES:**

PROVIDE SPECIALIZED RESEARCH INTO DEVELOPING NEW TECHNIQUES FOR NON-DESTRUCTIVE TESTING OF AIRPORT PAVEMENT; TO UPGRADE PAVEMENT DESIGN CRITERIA AND CONSTRUCTION STANDARDS. THE FAA TECH CTR WILL PERFORM TCE AND PROVIDE TEST REPORTS.

## 12. ILLUSTIONS:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
1	1	ARPT PAVEMENT PERFORMANCE ANALYSIS	7/80
2	2	POROUS FRICTION FOR PORTLAND CEMENT	11/80
3	3	MDT OF ARPT PAVEMENT FOR LGT ACFT	12/80
4	4	EXPANSIVE SOILS	5/81
5	5	IMPROVED TECHNIQUES FOR GRANULAR MATERIALS	9/83
6	6	FRICTION LEVELS BETWEEN PAVEMENT LAYERS	9/84

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REPORT DATE: 1/06/81

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- 1. PROJECT NUMBER: 082-431-010
  - 2. START DATE: 6/72
  - 3. REVISION NUMBER: 1
  - 4. TITLE: RUNWAY SURFACE TRACTION
  - 5. MANAGER: H. D'AULERIO
  - 6. ORGANIZATION: AAD-520
  - 7. TELEPHONE NUMBER: 202-426-3664

9. REQUIREMENT:

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

TO DEVELOP RUNWAY GROOVE CONFIGURATION WHICH WILL BE COST EFFECTIVE; TO DEVELOP METHODS OF INSTALLING GROOVES IN EXISTING AND NEW RUNWAYS AND TO INVESTIGATE OTHER RUNWAY SURFACE MATERIALS FOR COST EFFECTIVENESS. FAA TECH CTR WILL PERFORM T&E AND PROVIDE TEST REPORTS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M		OPTIMUM GROOVE CONFIG FOR PORTLAND CEMENT	10/80
X		3" GROOVE SPACINGS FOR PORT CEM CONCRETE RUNWAYS	6/80
P		PERFORMANCE OF PAVEMENT GROOVES	11/82
X		BRAKING PERFORMANCE EVALUATION	12/83

1. PROJECT NUMBER: 122-111-010
2. START DATE: 9/73
3. REVISION NUMBER: 7
4. TITLE: SURVEILLANCE SYSTEM IMPROVEMENTS
5. MANAGER: JAMES SHANNON
6. ORGANIZATION: ARD-111
7. TELEPHONE NUMBER: 202-476-9360
9. REQUIREMENT: FAA-ED-12-28
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

FAATC

AGREEMENT NUMBER:

TPD 21-211

11. SPECIFIC OBJECTIVES:

MAKE AN EN ROUTE SYSTEM TRACKER MORE RESPONSIVE TO AIRCRAFT TURN MANUEVERS THROUGH THE USE OF RANGE RATE DATA FROM MOVING TARGET DETECTION (MTD) EQUIPMENT. IMPROVED RESPONSE WILL IMPROVE PERFORMANCE OF CONFLICT ALERT FUNCTION AND RELATED FUNCTIONS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
		FAATC FINAL RPT ON SYS IMPACT COMP (EI)	DATE
			6/81

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 REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 122-112-020 2. START\_DATE: 10/76 3. REVISION\_NUMBER: 4  
 4. TITLE: CONFLICT RESOLUTION ADVISORY 5. MANAGER: PRESTON MARTIN  
 6. ORGANIZATION: ASD-112 7. TELEPHONE\_NUMBER: 202-426-9372  
 9. REQUIREMENT: FAA-ED-12-25

# 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 ASD-140 (GARY ELLISON) TPD RD-140

## 11. SPECIFIC OBJECTIVES:

PROVIDE COMPUTER ASSISTANCE IN RESOLVING POTENTIAL CONFLICTS WHEN LOSS OF RADAR SEPERATION MINIMA IS ABOUT TO OCCUR. USING INFO FROM THE CA FUNCTION THAT A VIOLATION OF SEPERATION MINIMA IS ABOUT TO OCCUR, THE FUNCTION WILL MAKE USE OF FLIGHT PLAN DATA AND TRACKING INFO TO PRESENT TO THE CONTROLLER A SUGGESTED RESOLUTION TO AVOID THE POTENTIAL CONFLICT WITHOUT CREATING ANOTHER.

## 12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MC		CONFLICT RESOLUTION APP COMPLETED	11/80
MC		TECHNICAL EVALUATION OF PROPOSALS COMPLETE	3/81
MC		COMPLETE NEGOTIATIONS WITH CONTRACTOR	6/81
MC		C/P CONTRACTUAL ACTION FOR SOFTWARE CONF	9/81
MC S		TECH DATA PKG COMPLETE (EI)	6/83

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REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 122-112-050      2. START\_DATE: 7/76      3. REVISION\_NUMBER: 6  
 4. TITLE: EN ROUTE METERING      5. MANAGER: PRESTON MARTIN

6. ORGANIZATION: ARD-112      7. TELEPHONE\_NUMBER: 202-426-9372

9. REQUIREMENT: FAA-ED-12-2B

10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:  
 FAATC      TPD 21-211  
 ARD-140 (ROBERT ERWIN)      TPD ED-140

11. SPECIFIC OBJECTIVES:

PROVIDE CONTROLLER ADVISORIES TO ABSORB DELAYS IN A FUEL CONSERVATIVE MANNER. THE PRIMARY OBJECTIVE OF THE EN ROUTE METERING FUNCTION IS TO ORGANIZE THE TRAFFIC AT HIGHER ALTITUDES IN THE EN ROUTE AIRSPACE SUCH THAT CONGESTION AND DELAYS IN THE TERMINAL AREA WILL BE KEPT TO A MINIMUM.

12. MILESTONES:

TYPE	DESCRIPTION	CUAR
INDICATOR	E/R METERING PRELIMINARY PDS COMPLETE	DATE
MC	12/80	4/81
MC	AAT-500 DELIVERS ARD2.12A COMPOCL TO ARD-100	6/81
MC	AAT-500 DELIVERS BASELINED ARD2.12A SYS TO ARD-100	7/81
MC	E/R METERING Q/A TESTING COMPLETE	8/82
MC 3	TECHNICAL DATA PACKAGE COMPLETE (E/1)	

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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 122-112-06D 2. START DATE: 7/75 3. REVISION NUMBER: 6  
 4. TITLE: CHA 5. MANAGER: MICHAEL DELINAM  
 6. ORGANIZATION: ARD-112 7. TELEPHONE NUMBER: 202-426-9372  
 9. REQUIREMENT: FAA-ED-12-2B

10. PARTICIPATING DGT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 FAATC, ANA-140 (LOU ROMA) RD-140  
 AFD-140 (LUTHER MC CLELLAN) TPD FD-140

11. SPECIFIC OBJECTIVES:

THE EN ROUTE ATC PROGRAM WILL BE ENHANCED TO AUTOMATICALLY FORMULATE AND GENERATE VARIOUS CLASSES OF MESSAGES TO SUITABLY EQUIPPED AIRCRAFT VIA A TWO-WAY DIGITAL DATA LINK. AN ADDITIONAL PACKAGE WAS DEVELOPED AND EVALUATED IN FY-76. A SECOND DEVELOPMENT EFFORT IS AIMED AT PROVIDING A DATA LINK CONFIRMATION OF CONTROLLER-ASSIGNED ALTITUDES. THIS CAPABILITY IS BEING DEVELOPED AS PART OF THE DABS SURVEILLANCE PROCESSING (BUILD II) PROJECT. AN EN ROUTE ATC PROGRAM TO MEET THE REQUIREMENTS WILL BE DEVELOPED AND EVALUATED, THE RESULTS FORMING THE BASIS OF TPD'S FOR DABS AND EN ROUTE SOFTWARE.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
X		CONTRACTUAL ACTION COMPLETE	DATE
X		ATC SYSTEM TESTING COMPLETE	11/82
X		EN ROUTE SOFTWARE TDP (EI)	9/84
			11/84

1. PROJECT NUMBER: 122-113-010  
 2. START DATE: 4/74  
 3. REVISION NUMBER: 5  
 5. MANAGER: BRIAN ANDREWS

4. TITLE: ETAPS  
 7. TELEPHONE NUMBER: 202-426-9340

6. ORGANIZATION: ACD-110  
 9. REQUIREMENT: FAA-ED-12-23 AND SYC EOMT STATEMENT FOR ETABS

10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:  
 ACD-140  
 FAATC  
 AGREEMENT NUMBER:  
 TPD PD-140  
 TDP 21-282

11. SPECIFIC OBJECTIVES:  
 TO DEVELOP AN ELECTRONIC TACTICAL DISPLAY SUBSYSTEM THAT WILL ELIMINATE THE NEED FOR USING PAPER  
 FLIGHT PROGRESS STRIPS AND MINIMIZE REPETITIVE AND TIME CONSUMING CONTROLLER INPUT ACTIONS. THE GOAL  
 IS TO IMPROVE DATA HANDLING EFFICIENCY AND ACHIEVE GAINS IN PRODUCTIVITY, SAFETY AND COST BENEFITS.

12. MILESTONES:

TYPE	DESCRIPTION	CUPR
INDICATOR	ETAPS CONTRACT AWARD (ENG MODFL)	DATE
✓	HAEDWAPE DELIVERY TO FAATC	1/79
✓	CCC INTEGRATION TEST COMPLETE	11/81
✓	ETAPS SYSTEM T&E COMPLETE	2/82
✓	ETABS TDP (EI)	5/83
✓		9/83

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RESEARCH AND TECHNOLOGY  
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 1/06/81

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1. PROJECT\_NUMBER: 122-113-030 2. START\_DATE: 4/76 3. REVISION\_NUMBER: 7  
4. TITLE: RADAR DISPLAY RECORDING/PLAYBACK SUBSYSTEM 5. MANAGER: PARKER HARRIS  
6. ORGANIZATION: AFD-113 7. TELEPHONE\_NUMBER: 202-426-9360  
9. REQUIREMENT: FAA-ED-12-2B AND 9550 NAT-100-31  
10. PARTICIPATING\_DOT/GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
FAATC, ACT-230 (P. GUSTAFSON) TPD 12-226

11. SPECIFIC OBJECTIVES:

A DIGITAL RECORDING SUBSYSTEM WILL BE DESIGNED, FABRICATED, TESTED AND EVALUATED BY FAATC TO PERMIT THE RECORDING AND PLAYBACK OF ALL DATA TRANSMITTED TO ALL PVD CONSOLES. FAATC WILL DEVELOP, FABRICATE, TEST AND EVALUATE AN ENGINEERING MODEL AND DEVELOP PRODUCTION SPECIFICATIONS AND FINAL DESIGN DATA.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
M		FINAL REPORT	DATE
MC 5		TECHNICAL DATA PACKAGE (EI)	6/81
			4/80



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REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 122-113-050 2. START\_DATE: 1/80 3. REVISION\_NUMBER: 0  
 4. TITLE: PARTS DISPLAY RECORDING/PLAYBACK SUBSYSTEM 5. MANAGER: PARKER HARRIS

6. ORGANIZATION: ARD-113 7. TELEPHONE\_NUMBER: 202-426-9360

9. REQUIREMENT: 9550 AAT-100-43

10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 FAATC, ACT-230 (P. GUSTAFSON)

# 11. SPECIFIC OBJECTIVES:

NAFEC WILL DESIGN, DEVELOP AND FABRICATE A PBOARD MODEL PARTS DISPLAY RECORDING/PLAYBACK SUBSYSTEM. THE SUBSYSTEM WILL BE INTERFACED WITH THE PARTS EQUIPMENT AT NAFEC. IT WILL RECORD/PLAYBACK ALL PARTS DISPLAYS. THE RECORDING WILL BE DIGITAL AND THE SYSTEM WILL BE TRANSPARENT TO THE NORMAL OPERATION. DEMONSTRATION AND TESTING WILL BE DONE AT NAFEC.

# 12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
MC	N	SYSTEM DESIGN COMPLETE	DATE 7/80
Y	N	REORDER CONTRACT SIGNED	1/81
YC	N	SYSTEM FABRICATION COMPLETE	9/81
MC	S	TECH DATA PACKAGE (DI)	4/83

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 REPORT DATE: 1/06/81  
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1. PROJECT NUMBER: 122-113-060 2. START DATE: 5/80 3. REVISION NUMBER: 0  
 4. TITLE: STABS DISPLAY RECORDING/PLAYBACK STUDY 5. MANAGER: P. HARRIS  
 6. ORGANIZATION: ART-113 7. TELEPHONE NUMBER: 202-426-9360  
 9. REQUIREMENT: 9550 AAT 100-45  
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: ACT-230, P. GUSTAFSON  
 AGREEMENT NUMBER: NONE

11. SPECIFIC OBJECTIVES:

FAA TECHNICAL CENTER WILL PRODUCE A STUDY AND ANALYSIS OF THE INTERFACE NECESSARY TO RECORD STABS DATA ON THE EN ROUTE PVD RECORDING SYSTEM. THE STUDY WILL INCLUDE COST ESTIMATES, REQUIRED HARDWARE AND IMPACT ON THE EN ROUTE RECORDING SYSTEM. STUDY WILL INCLUDE ANALYSIS OF HARD COPY PRINTOUT OF RECORDED STABS DATA DURING PLAYBACK. ALTERNATE RECORDING TECHNIQUES WILL BE INVESTIGATED IF RECORDING ON EN ROUTE SYSTEM IS NOT FEASIBLE OR COST EFFECTIVE.

12. MILESTONES:

TYPE	DESCRIPTION	CURR
INDICATOR	STUDY & ANALYSIS COMPLETE (FT)	DATE
N		1/82

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R F S E A R C H   A N D   T E C H N O I O G Y

REPORT DATE: 1/06/81

TECHNICAL PROGRAM DOCUMENT

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1. PROJECT\_NUMBER: 122-114-010      2. START\_DATE: 6/77      3. REVISION\_NUMBER: 4  
4. TITLE: HARDWARE MEASUREMENT AND ANALYSIS      5. MANAGER: ARTHUR F. CHANTKER  
6. ORGANIZATION: ARD-111      7. TELEPHONE\_NUMBER: 202-426-0960  
9. REQUIREMENT: FMA-ED-12-25, 9550 AAT 500-22, INCREASE ALLOWABLE FDR SITES FOR NAS  
10. PARTICIPATING\_DOD/GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME:  
ARD-140 (C. NICHOLS)

AGREEMENT NUMBER:  
TPD RD-140

11. SPECIFIC OBJECTIVES:

MEASURE AND EVALUATE THE PERFORMANCE OF EN ROUTE HARDWARE AND SOFTWARE DEVELOPMENT EFFORTS TO ASSESS  
THEIR COMPUTER RESOURCE REQUIREMENTS AS A FUNCTION OF NEW AUTOMATION ENHANCEMENTS AND THE ATC ROLE.

12. MILESTONES:

TYPE	CURR
INDICATOR	DATE
CCC/ETABS MEASUREMENT PLAN (SPA') COMPLETED	3/81

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 \* RESEARCH AND TECHNOLOGY \*  
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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 122-114-040 2. START DATE: 10/77 3. REVISION NUMBER: 3  
 4. TITLE: CONTROLLER PERFORMANCE MEASUREMENT 5. MANAGER: ARTHUR F. CHANTKER

6. ORGANIZATION: ARD-111 7. TELEPHONE NUMBER: 202-426-0960

9. REQUIREMENT: FAA-ED-12-25

10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 TSC (DTS-532) PPA FA-068  
 FAATC (ACT-230)

11. SPECIFIC OBJECTIVES:

TO ASSESS THE RELATIVE IMPROVEMENT IN THE PERFORMANCE OF THE AIR TRAFFIC CONTROLLER DUE TO THE ADDITION OF NEW SOFTWARE AND HARDWARE DEVELOPMENTS AND ENHANCEMENTS. THIS CONTROLLER PERFORMANCE DATA WILL CONTRIBUTE TO THE INFORMATION CURRENTLY AVAILABLE FOR MAKING IMPLEMENTATION DECISIONS TO IMPLEMENT ENHANCEMENTS IN THE OPERATIONAL ATC SYSTEM.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION
P		ETABS RPT (SRI) COMPLETED
X		DRAFT RPT ETABS COST/BENEFIT STUDY COMP.

CURR  
 DATE  
 5/82  
 9/82

REPORT DATE: 1/06/81

- AGREEMENT NUMBER:  
TPD RD-140  
TPD 03-110

MODS WILL BE ACCON. IN 2 SEQUEN. DEV. ACTIVITIES, SCHEDULED TO PERMIT TESTING PRIOR TO HANDOFF TO OFF OF A TDP FOR THE DABS SENSOR. BUILD I PROVIDES FOR TRACKING & DISPLAY OF DABS SURV. DATA & COMM. WITH THE DABS SENSORS THRU THE FRON-END PROCESSOR. BUILD II ADDS SEVERAL FUNCTIONAL ENHANCEMENTS TO BUILD I, INCLUDING USE OF THE DABS DPTA LINK FOR ATC MESS:GES.

TYPE	INDICATOR	DESCRIPTION	CURR DATE
H		DABS/ATC TECHNICAL TEST REPORT	6/81
MC		OPER SERVICES' REQUIREMENTS DEFINED	10/80
Y		CONTRACTUAL ACTION	2/81
MC		QA TESTING COMPLETE	3/82
H	N	DABS/ATC TEST REPORT	12/82
MC	S	ENROUTE SOFTWARE TDP (EI)	1/83

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 REPORT DATE: 1/06/81  
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1. PROJECT\_NUMBER: 122-115-020
2. START\_DATE: 7/75
3. REVISION\_NUMBER: 5
4. TITLE: ATARS PROCESSING
5. MANAGER: PRESTON MARTIN
6. ORGANIZATION: ARD-112
7. TELEPHONE\_NUMBER: 202-426-9372
9. REQUIREMENT: FAA-ED-12-2B
10. PARTICIPATING\_DOT\_GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME: ARD-140  
 AGREEMENT NUMBER: TPD RD-140

#### 11. SPECIFIC OBJECTIVES:

THIS EFFORT WILL DEVELOP EN ROUTE SUPPORT AND ATC SOFTWARE REQUIRED FOR TEST AND EVALUATION OF THE ATARS FUNCTION AND WILL PROVIDESPEC FOR EN ROUTE SOFTWARE NECESSARY FOR ATARS IMPLEMENTATION. A DEVELOPMENT, TEST, AND EVALUATION EFFORT WILL BE PERFORMED TO ASSESS THE TECHNICAL AND OPERATIONAL SUITABILITY OF THE INTERFACE BETWEEN THE EN ROUTE ATC SYSTEM AND ATARS AS IT HAS BEEN REDEFINED.

#### 12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MC		FUNCTIONAL DESCRIPTION	7/80
N		COMPLETE ATARS CONTRACTUAL ACTION	11/80
N		ATARS O&A TESTING COMPLETE	9/81
N	N	ATC SYSTEM TESTS COMPLETE	5/82
N	N	TEST REPORT COMPLETE	7/82
MC S		ATC SOFTWARE PRELIMINARY TDF (EI)	1/83

1. PROJECT NUMBER: 122-115-040

2. START DATE: 10/78

3. REVISION NUMBER: 1
4. TITLE: ETABS SOFTWARE INTERFACE DEVELOPMENT

5. MANAGER: PRESTON MARTIN
6. ORGANIZATION: ARD-112

7. TELEPHONE NUMBER: 202-426-9372
9. REQUIREMENT: FAA-ED-12-28
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

ARD-140 (JOHN FICKLER)

AGREEMENT NUMBER:

TRD RD-140

11. SPECIFIC OBJECTIVES:

THIS EFFORT PROVIDES FOR DEVELOPMENT OF SOFTWARE WHICH WILL TEST THE INTERFACE BETWEEN THE ETABS EQUIPMENT AND THE FAATC SSF. TESTING RESULTS WILL BE USED TO DEVELOP A SPECIFICATION FOR NAS EN ROUTE SOFTWARE CHANGES WHICH WILL BE REQUIRED FOR THE NATIONAL IMPLEMENTATION OF ETABS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
N		QUALITY ASSURANCE TESTING COMPLETE	1/81
N		QUALITY ASSURANCE TEST REPORT COMPLETED	2/81
N	N	BEGIN INTERFACE TESTING	4/81
N	N	INTERFACE TESTING COMPLETE	6/81
N	N	INTERFACE TESTING COMPLETE	6/81

**REPORT DATE: 1/06/81**

- AGREEMENT NUMBER:  
TFD RD-140

IDENTIFY, COLLECT, AND ANALYZE CURRENT SYSTEM AND SYSTEM ENHANCEMENT DOCUMENTATION AND PRODUCE A COMPLETE, CONSISTENT SYSTEM DESCRIPTION. ALSO PERFORM STATISTICAL ANALYSES OF 9020 SYSTEM DEMAND VERSUS CAPACITY DATA COLLECTED FROM ARTCC'S.

TYPE	INDICATOR	DESCRIPTION	CURR
1	FINAL SYSTEM	FINAL SYSTEM DESCRIPTION	DATE
2	COMPLETE ARTCC	COMPLETE ARTCC UTILIZATION ANALYSIS	10/80
3	UTILIZATION ANALYSIS	UTILIZATION ANALYSIS (FI)	6/81



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REPORT DATE: 1/06/81

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- 1. PROJECT NUMBER: 123-131-01C      2. START DATE: 10/79      3. REVISION NUMBER: 1
- 4. TITLE: PROGRAM PLANNING AND SYSTEM ENGINEERING (MITRE)
- 5. MANAGER: E. F. CORINI
- 6. ORGANIZATION: ARD-132      7. TELEPHONE NUMBER: 202-426-9324
- 9. REQUIREMENT: SRC LETTER OF 9/21/78
- 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: MITRE  
 AGREEMENT NUMBER: FY-80 TOS

11. SPECIFIC OBJECTIVES:

TO ANALYZE THE IMPACT OF PLANNED AUTOMATION ENHANCEMENTS ON THE ARTCC COMPUTER (9020) AND TO STUDY ALTERNATIVES TO OFFLOAD THE PRESENT SYSTEM.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M		SYS ANALYSIS OF OFFLOADING ALTERNATIVES (EI)	10/80

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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 123-132-02C      2. START DATE: 10/79      3. REVISION NUMBER: 1

4. TITLE: VALIDATION AND VERIFICATION (V&V)

6. ORGANIZATION: ARD-131

7. TELEPHONE NUMBER: 202-426-9324

5. MANAGER: T. HANNAN

9. REQUIREMENT: SRG LETTER OF 9/21/78

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:

### 11. SPECIFIC OBJECTIVES:

PERFORM INDEPENDENT ANALYSIS OF REQUIREMENTS DESCRIPTIONS AND PREPARE A COMPLETE AND CONSISTANT SYSTEM SPECIFICATION. ADDITIONALLY, PREPARE TECHNICAL REPORTS RECOMMENDING APPLICATION OF DESIGN, CONSTRUCTION, AND QUALITY STANDARDS.

### 12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M		INITIAL REQUIREMENTS DATA BASE COMPLETE	9/80
X		COMPLETE SYSTEM DESIGN VERIFICATION	9/80
M		COMPLETE PRODUCTION OF SYSTEM DESCRIPTION	11/80
MC S		COMPLETE PRODUCTION OF DRAFT REPLACEMENT SYS SPEC	12/80
M		COMPLETE FINAL REPORT ON ACCEPTANCE TEST PLAN	12/80
M		COMPL PROB SYS LANG MODEL OF DRAFT REPL SYS SPEC	1/81
M		COMPL VERIFICATION OF DRAFT REPL SYS INTERF SPEC	3/81
MC S		COMP PROD OF FINAL REPL SYSTEM SPECIFICATION (EI)	9/81

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REPORT DATE: 1/06/81

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- 1. PROJECT\_NUMBER: 123-132-03C      2. START DATE: 10/79      3. REVISION\_NUMBER: 1
- 4. TITLE: SYSTEM ENGINEERING AND TECHNICAL ASSISTANCE (SETA)      5. MANAGER: E. F. CORINI
- 6. ORGANIZATION: ARD-132      7. TELEPHONE\_NUMBER: 202-426-9324

- 9. REQUIREMENT: SRG LETTER OF 9/21/78

10. PARTICIPATING\_DOTGOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

THIS EFFORT WILL COVER (1) REQUIREMENTS SPECIFICATION AND ALLOCATION; (2) COST, SCHEDULE AND RISK ANALYSES, (3) PERFORMANCE ANALYSIS, SIMULATIONS AND MODELING, (4) FEASIBILITY AND TRADE STUDIES AND (5) DEVELOPMENT OF TECHNICAL MANAGEMENT STANDARDS AND PRACTICES WHICH ARE REQUIRED TO DEFINE THE SYSTEM NEEDED FOR ATC COMPUTER REPLACEMENT.

12. MILESTONES:

INDICATOR	DESCRIPTION	CURR
MC S	SETA CONTRACT AWARD	DATE
		6/81

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REPORT DATE: 1/06/81

- 1. PROJECT\_NUMBER: 123-132-04C      2. START DATE: 10/80      3. REVISION\_NUMBER: 0
- 4. TITLE: SECTOR SUITE DEVELOPMENT      5. MANAGER: J.D. EDGBERT
- 6. ORGANIZATION: ARD-113      7. TELEPHONE\_NUMBER: 202-426-9360
- 9. REQUIREMENT: 9550 AAT-100-47, ENROUTE SECTOR CONFIGURATION
- 10. PARTICIPATING\_DOT\_GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME:  
 FAA TECHNICAL CENTER  
 NITRE  
 AGREEMENT NUMBER:  
 FY-81 TOS

11. SPECIFIC OBJECTIVES:

A HUMAN FACTOR STUDY WILL BE INITIATED TO IDENTIFY ALTERNATIVE ARRANGEMENTS OF THE VARIOUS TYPES OF DISPLAYS NEEDED AT THE ENROUTE CONTROL SECTORS. THE OBJECTIVE WILL BE TO DERIVE A OPTIMUM SECTOR ARRANGEMENT IN TERMS OF VISIBILITY OF DISPLAYED DATA AND ACCESSIBILITY OF INPUT/OUTPUT DEVICES. AN ANALYSIS OF CURRENT AND PROJECTED DISPLAY PRESENTATION REQUIREMENTS WILL BE CONDUCTED IN CLOSE COORDINATION WITH THE WORK BEING DONE BY OSM IN RESPONSE TO 9550 AAT-500-21, HUMAN FACTORS STUDY ON TYPE AND AMOUNT OF DATA VIA THE PVD. THE RESULTS OF THIS ANALYSIS WILL BE APPLIED TO DESIGN CONCEPTS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
M		MOCK-UP CONFIGURATIONS DEFINITION	DATE
NC	N	MANAGEMENT DEMONSTRATION	11/80
NC		9550 COMPLETION REPORT (EI)	7/81
			1/82

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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 123-133-01C 2. START DATE: 4/81 3. REVISION NUMBER: 0  
 4. TITLE: COMPUTER REPLACEMENT SYSTEM DESIGN 5. MANAGER: M. E. PERIE  
 6. ORGANIZATION: ARD-130 7. TELEPHONE NUMBER: 202-426-9324

10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: NONE  
 AGREEMENT NUMBER: NONE

11. SPECIFIC OBJECTIVES:

TO DESIGN THE REPLACEMENT FOR THE EN ROUTE ATC AUTOMATION SYSTEM BY MEANS OF DEVELOPMENT CONTRACTORS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
		TSARC I	DATE
MC S		COORDINATED SPECIFICATIONS & RFP	6/81
MC S		AWARD CONTRACTS: ALTERNATIVE CONCEPTS	12/81
N		TSARC II	12/82
N		AWARD CONTRACTS: DSGN & CRITICAL SUBSYSTEM DEMO	6/83
N		TSARC II	9/83
N		AWARD CONTRACT(S): FULL SCALE DEVELOPMENT	9/85
N		HAND OFF TO ARF	12/85

1. PROJECT\_NUMBER: 124-111-030

2. START\_DATE: 1/80

3. REVISION\_NUMBER: 0
4. TITLE: 25-INCH CATHODE-RAY TUBE SAFETY TESTS

5. MANAGER: A. J. KOPALA
6. ORGANIZATION: ARD-113

7. TELEPHONE\_NUMBER: 202-426-9360
9. REQUIREMENT: FAA-ED-12-2B
10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

FAMTC,ACT-230

AGREEMENT NUMBER:

TPD 12-226

11. SPECIFIC OBJECTIVES:

TEST AND EVALUATE SAMPLES OF THE 25 INCH RECTANGULAR, ALL-GLASS CATHODE PAY TUBE (CRT) WHICH IS TO BE USED IN THE ELECTRONIC TABULAR DISPLAY SUBSYSTEM (ETARS).

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
N	N	CONTRACT AWARD	DATE
N	N	SUBMISSION OF FINAL REPORT (E/I)	4/80
			4/81

REPORT DATE: 1/06/81

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T E C H N I C A L   P R O G R A M   D O C U M E N T  
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1. PROJECT NUMBER: 124-111-040      2. START DATE: 8/80      3. REVISION NUMBER: 0  
4. TITLE: DARC RADAR DISPLAY MARKERS      5. MANAGER: ALAN J. KOPALA  
6. ORGANIZATION: ARD-113      7. TELEPHONE NUMBER: 202-426-9360

9. REQUIREMENT: 9550 AAT 100-51

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:  
AAT-120, JOHN R. RYAN      NONE

11. SPECIFIC OBJECTIVES:

TO DETERMINE A METHOD FOR DEPICTING AIRCRAFT IDENTIFICATION DATA ON PLASTIC "SHRIMPBOAT" RADAR  
DISPLAY MARKERS WHEN VIEWED ON A PLAN VIEW DISPLAY (PVD) IN THE DIGITAL MODE OF THE DIRECT ACCESS  
RADAR CHANNEL (DARC). THE FINDINGS AND RECOMMENDATIONS WILL BE PROVIDED IN A TECHNICAL MEMORANDUM TO  
AAT.

12. MILESTONES:

TYPE	DESCRIPTION	CURR
INDICATOR	DELIVERY OF TECH MEMO TO AAT (EI)	DATE
M		10/80

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REPORT DATE: 1/06/81

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- 1. PROJECT NUMBER: 132-402-010
  - 2. START DATE: 1/79
  - 3. REVISION NUMBER: 6
  - 4. TITLE: FLIGHT SERVICE AUTOMATION SYSTEM ACQUISITION
  - 5. MANAGER: ROBERT BERNARD
  - 6. ORGANIZATION: ARD-403
  - 7. TELEPHONE NUMBER: 202-426-9357
  - 9. REQUIREMENT: OST/FMA STUDY 12/74; FSAS MASTER PLAN 01/78
  - 10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:                      AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DELIVER FSAS MODEL 1 TO A FIELD SITE BY 5/82  
 SITE BY 8/83

DELIVER FSAS MODEL 2 TO A FIELD

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
N		DESIGN VERIFICATION CONTRACT AWARD	DATE
MC		DESIGN VERIFICATION COMPLETE	1/80
MC S		PRODUCTION CONTRACT AWARD	1/81
MC		MODEL 1 HARDWARE DELIVERY (TEC C)	6/81
MC		MODEL 1 FIRST OPR SITE HARDWARE DELIVERY	4/82
MC		MODEL 2 HARDWARE DELIVERY TECH CTR	5/82
MC		MODEL 2 FIRST OPR SITE HARDWARE DELIVERY	5/83
			8/83



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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 132-403-010      2. START DATE: 8/75      3. REVISION NUMBER: 5
4. TITLE: DEVELOPMENT, TEST & SPECIFICATION OF FSS DIRECT USER ACCESS CAPABIL      5. MANAGER: CHDF.B.B.BLUM
6. ORGANIZATION: ARD-420      7. TELEPHONE NUMBER: 202-426-9357
9. REQUIREMENT: OST/FAA TUDY, 12/74; FSS MASTER PLAN, 1/78
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:  
 TSC      PPA 031  
 MITRE      TOS 80-V

# 11. SPECIFIC OBJECTIVES:

(1) DEVEL NEW DIRECT USER ACCESS (DUA) CONCEPTS FOR TEST, EVAL & SPEC: (2) DEVEL & INTEGRATE DUA FEATURES IN MD 2 & MD 3 SYSTS: (3) DEVELOP AND INTEGRATE DUA FEATURES IN MODEL 2: (4) SUPPORT DUA PRODUCTION AND IMPLEMENTATION ACTIVITY. DUA DEVELOPMENT SUPPORTS THE LONG-TERM FSS PROGRAM GOALS OF ADDING EXPANDED CAPABILITY TO THE FSS AUTOMATION SYSTEM SO THAT CAPACITY CAN BE INCREASED.

# 12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M	VC	COLUMBUS VRS EVALUATION COMPLETED	3/80
M	VC	FLIGHT PIN FILING/PSP PUBLIC DEMO. BEGIN	2/81
M	VC	AUTOMATED FLIGHT PLAN FILING EVALUATION START	2/81
M	VC	ENHANCEMENT DEVELOP CONT. STM OF WK & RFP	3/81
M	VC	ENHANCEMENT DEVELOPMENT CONT AND (MDL 3)	2/82
M	VC	PRODUCTION CONTRACT MODEL 3	6/83
M	VC	IMPLEMENTATION-ENHANCEMENT PACKAGE #1	12/84

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 \* TECHNICAL PROGRAM DOCUMENT \*  
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REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 142-120-010      2. START\_DATE: 10/77      3. REVISION\_NUMBER: 4  
 4. TITLE: COMPUTER SOFTWARE DEVELOPMENT SUPPORT (AFD-140)  
 5. MANAGER: JOHN HORROCKS  
 6. ORGANIZATION: ARD-123      7. TELEPHONE\_NUMBER: 202-426-9336  
 9. REQUIREMENT: PROGRAM PLAN FAA-ED-14-2A  
 10. PARTICIPATING\_DOT\_GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:  
 ORGANIZATION NAME:      AGREEMENT NUMBER:  
 ASD-140      TPD FD-140

11. SPECIFIC OBJECTIVES:

ARD-140 WILL PREPARE SPECIAL PACKAGES, PERFORM DOCUMENTATION REVIEW AND CONDUCT VERIFICATION TESTS OF SOFTWARE IN SUPPORT OF THE TERMINAL PROGRAM.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
N		MCS WINDS ALOFT TESTING	DATE
N		TAMPA SARASOTA SFTWR SUPPORT COMPLFTE	1/80
N		ATARS DESIGN VERIFICATION	7/80
N		CONFLICT ALERT DESIGN VERIFICATION (EI)	3/81
			3/81

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 \* RESEARCH AND TECHNOLOGY \*  
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 \* TECHNICAL PROGRAM DOCUMENT \*  
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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 142-121-010      2. START DATE: 7/75      3. REVISION NUMBER: 5  
 4. TITLE: PROGRAM PLANNING AND SYSTEM ENGINEERING (MITRE)  
 5. MANAGER: WILLIAM FRASER  
 6. ORGANIZATION: ARD-123      7. TELEPHONE NUMBER: 202-426-1336  
 9. REQUIREMENT: TECHNICAL PROGRAM PLAN FAA-ED-14-2A  
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: MITRE      AGREEMENT NUMBER: FY-80 TOS

# 11. SPECIFIC OBJECTIVES:

SRDS, WITH CONTRACTOR (MITRE) WILL PREPARE REQUIRED ANALYSES, DESIGN STUDIES, TEST PLANS, ENGINEERING REQUIREMENTS AND SYSTEM TEST REPORTS.

# 12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
N		SOFTWARE REQUIREMENTS FOR DARS	DATE 8/78
		RRI/ATC INTERFACE SPECIFICATION	2/81

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 \* RESEARCH AND TECHNOLOGY \*  
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 REPORT DATE: 1/06/81  
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1. PROJECT NUMBER: 142-171-050
2. START DATE: 10/77
3. REVISION NUMBER: 3
4. TITLE: FULL DIGITAL ARTS DISPLAY (FDAD) DEVELOPMENT
5. MANAGER: RICHARD SIMON
6. ORGANIZATION: ARD-122
7. TELEPHONE NUMBER: 202-426-9342
9. REQUIREMENT: TECHNICAL PROGRAM PLAN, FAA-ED-14-2A
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: FAATC  
 AGREEMENT NUMBER: TPD21-211

11. SPECIFIC OBJECTIVES:

TO DEVELOP A DISPLAY WHICH IS REPRESENTATIVE OF THE STATE-OF-THE-ART IN PERFORMANCE, FLEXIBILITY, WEIGHT, POWER CONSUMPTION, MAINTAINABILITY AND RELIABILITY. THE RED MODELS WILL BE EVALUATED TO VALIDATE REQUIREMENTS TO BE INCLUDED IN A TECHNICAL DATA PACKAGE TO ENABLE SPECIFICATION OF A REPLACEMENT FOR THE ARTS III DISPLAYS, WHICH ARE APPROACHING OBSOLESCENCE.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
	✓	CONTRACT AWARDED	DATE
MC		DISPLAYS DELIVERED TO FAATC	8/79
MC S		TDP DELIVERED (EI)	6/81
			4/82

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 \* RESEARCH AND TECHNOLOGY \*  
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 \* TECHNICAL PROGRAM DOCUMENT \*  
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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 142-172-020 2. START DATE: 8/80 3. REVISION NUMBER: 0  
 4. TITLE: TERMINAL SEQUENCING AND SPACING 5. MANAGER: GARY ROWLAND

6. ORGANIZATION: ARD-123 7. TELEPHONE NUMBER: 202-426-9336

9. REQUIREMENT: TECHNICAL PROGRAM PLAN FAA-ED-14-2A

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: ACFTFMENT NUMBER:  
 FAA TECHNICAL CENTER TPD 14-211  
 MITRE FY81 TOS

11. SPECIFIC OBJECTIVES:

TO DEVELOP A PRELIMINARY DESIGN FOR A TERMINAL SEQUENCING AND SPACING (TSS) AUTOMATION AID. THIS CAPABILITY WILL BE DEVELOPED UNDER CONTRACT TO THE SPERRY UNIVAC CORPORATION. IN ORDER TO SUPPORT THE DESIGN DEVELOPMENT, A DETAILED DATA COLLECTION AND ANALYSIS ACTIVITY WILL BE UNDERTAKEN AT THREE ARTS III SITES WITH A SIMULTANEOUS ANALYSIS OF ALTERNATIVES AND REQUIREMENTS FOR INTEGRATING THE TSS FUNCTION INTO THE ARTS IIIA SYSTEM. OUT OF THIS ACTIVITY WILL COME THE COMPUTER PROGRAM FUNCTIONAL SPECIFICATIONS (CPFS'S) WHICH WILL BE THE BASIS FOR THE PRELIMINARY DESIGN.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CURR DATE
MC	CONTRACT AWARDED TO UNIVAC	8/80
MC	TSS/ARTS IIIA MPE INTEGRATION ANAL RPT COMPLETE	4/81
MC	FINAL SITE ANALYSIS REPORT COMPLETE	5/81
MC	MITRE FINAL FUNCTIONAL REQUIREMENTS DOCU COMPLETE	8/81
MC	TSS/ARTS IIIA MPE INTEGRATION REQUIRE. RPT COMPL.	10/81
MC	FINAL FUNCTIONAL SIMULATION REPORT COMPLETE	11/81
MC	FINAL CPFS'S COMPLETE	1/82
MC	FINAL PRELIMINARY DESIGN SPEC COMPLETE (EI)	6/82

RESEARCH AND TECHNOLOGY  
TECHNICAL PROGRAM DOCUMENT

7. TELEPHONE NUMBER: 202-426-9336

FAA-ED-14-2A

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:  
FAAC

**11. SPECIFIC OBJECTIVES:**

TO DEVELOP, TEST, AND EVALUATE THE INTERFACE AND INTERACTIONS BETWEEN DABS/ATAS AND AN ARTS IIIA SOFTWARE FOR THE ARTS IIIA ALL DIGITAL SYSTEM (ADS). THIS WILL BE ACCOMPLISHED BY ADDING SOFTWARE MODULES TO THE ADS SOFTWARE DEVELOPED UNDER 142-176-010.

12. HILSTONS:

TYPE	INDICATOR	DESCRIPTION
MC		ADS/ATARS SOFTWARE COMPLETE
M		COMPLETE OPERATIONAL TGE
MC S		ADS CA/ATARS TEE EPT (EI)

CURR	DATE
12/80	
12/81	
12/81	

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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 142-175-020 2. START DATE: 6/74 3. REVISION NUMBER: 6  
 4. TITLE: ARTS II ENHANCEMENTS 5. MANAGER: J. HORROCKS

6. ORGANIZATION: ASD-123  
 7. TELEPHONE NUMBER: 202-426-9336  
 9. REQUIREMENT: FAA-ED-14-2A; AA-1 LTR, SUBJ; ARTS II ENHAN, 11/6/78 & 9/12/80

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 FAATC TPD 21-211

11. SPECIFIC OBJECTIVES:

TO DEVELOP HARDWARE AND SOFTWARE ENHANCEMENTS FOR ARTS II SYSTEMS, TO INCREASE CAPABILITY, FLEXIBILITY, RELIABILITY AND MAINTAINABILITY. A DESIGN ALTERNATIVE STUDY WILL BE COMPLETED FIRST TO DETERMINE THE BEST APPROACH. TO SUPPORT AN FY-83 IMPLEMENTATION PROGRAM, HANDOFFS WILL BE IN THE FORM OF A HARDWARE DESIGN SPECIFICATION AND SOFTWARE DESIGN DATA (INCLUDING OPERATIONAL PROGRAM CODE) TO THE OPERATING SERVICES.

12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	CUPR DATE
Y	CONTRACT AWARD	4/80
MC S	FINAL REPORT	12/80
MC	CONTRACT AWARD FOR PHASE II	3/82
MC	EQUIPMENT DELIVERY TO FAATC	3/83
MC S	OPERATIONAL SOFTWARE DELIVERED TO ATF (EI)	4/84

REPORT DATE: 1/06/81

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\* RESEARCH AND TECHNOLOGY \*  
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1. PROJECT NUMBER: 142-176-040 2. START DATE: 6/75 3. REVISION NUMBER: 1  
4. TITLE: DATA LINK INTERFACE - 5. MANAGER: JOHN HORROCKS  
6. ORGANIZATION: ARD-123 7. TELEPHONE NUMBER: 202-426-9336  
9. REQUIREMENT: TECHNICAL PROGRAM PLKAN FAA-ED-14-2A  
10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: FAATC  
AGREEMENT NUMBER: TPD 02-110

11. SPECIFIC OBJECTIVES:

TO DEVELOP, TEST AND EVALUATE AN INTERFACE BETWEEN AN ARTS IIAA AND DABS WITH FULL DATA LINK CAPABILITY. FUNCTIONS TO BE CONSIDERED FOR DATA LINKS INCLUDE MSAW, CONFLICT ALERT, P&S, WEATHER, ETC. THE APPROACH IS TO ADD SOFTWARE MODULES TO THE ARTS IIAA DIGITAL SYSTEM (ADS) SOFTWARE DEVELOPED UNDER 142-176-010.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
M	N	START T&E	DATE
M	N	COMPLETE T&E	3/82
M	N	ADS/DATA LINK T&E REPORT (E/I)	6/82
			10/82



1. PROJECT NUMBER: 143-152-010

2. START DATE: 6/77

3. REVISION NUMBER: 5
4. TITLE: VISUAL CONFIRMATION OF VOICE TAKEOFF CLEARANCE (VICCN)

5. MANAGER: L. DOUGLASS
6. ORGANIZATION: ARD-111

7. TELEPHONE NUMBER: 202-426-0960
9. REQUIREMENT: 9550- ATF-77-2
10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

FAATC

TSC

AGREEMENT NUMBER:

TPD 07-213

RPA FA-021

11. SPECIFIC OBJECTIVES:

TO DETERMINE IF A VISUAL CONFIRMATION OF A VOICE TAKEOFF CLEARANCE IS FEASIBLE & IF IT PROVIDES AN ADDED MEASURE OF SAFETY. IT WILL BE ACCOMPLISHED IN 2 PHASES BY IN-HOUSE, FAATC, TSC & ANE SUPPORT. PHASE 1 WILL BE AN INSTALL., TEST & EVAL. AT 3 TAKEOFF LOCATIONS AT FAATC. PHASE 2 WILL BE AN INSTALLATION & EVAL. OF A COMPL. SYS. AT THE BRADLY INTER-L AIRPORT, & WILL EMPHASIS THE CONTROLLER & P

12. MILESTONES:

INDICATOR	DESCRIPTION	CURR
NO S	TDP (END ITEM)	DATE
	FINAL RPT (9550 SATISFIFO, PRELIM TDP) (EI)	3/81
		10/80

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REPORT DATE: 1/06/81

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- 1. PROJECT\_NUMBER: 145-130-01C                    2. START\_DATE: 10/79                    3. REVISION\_NUMBER: 1
- 4. TITLE: COMPUTER SOFTWARE DEVELOPMENT SUPPORT (ARD-14C)                    5. MANAGER: WILLIAM LIVINGSTON
- 6. ORGANIZATION: ARD-131                    7. TELEPHONE\_NUMBER: 202-426-9324

9. REQUIREMENT: SRG LTR OF 9/21/79

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:                    AGREEMENT NUMBER:  
 ARD-140                    IPD RD-140  
 ARD-140                    NGMT PLAN

11. SPECIFIC OBJECTIVES:

IDENTIFY, COLLECT, ORGANIZE AND CATALOGUE ATC AUTOMATION SYSTEM DOCUMENTATION. ANALYSE DOCUMENTATION AND PRODUCE SYSTEM-LEVEL REQUIREMENTS SPECIFICATIONS FOR MAJOR FUNCTIONAL AREAS AND SYSTEM-LEVEL DATA DESCRIPTIONS FOR EXTERNAL AND INTERNAL INTERFACES. ENSURE THAT APPLICABLE TERMINAL ATC REQUIREMENTS ARE INCLUDED IN SYSTEM-LEVEL SPECIFICATIONS. PERFORM STATISTICAL ANALYSES OF AUTOMATION SYSTEM UTILIZATION BASED ON FIELD MEASUREMENT DATA.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURE DATE
N	COMP 9020	UTILIZATION DATA COLLECTION FOR A3D2.9	9/80
N	COMP FINAL	AUTOMATION SYSTEM DESCRIPTION	10/80
MC S	COMP FINAL	9020 UTILIZATION REPORT (EI)	6/81
N	COMP FINAL	FUNCTIONAL AREA SPECIFICATION	9/81
N	COMP FINAL	DATA DESCRIPTION	9/81

1. PROJECT\_NUMBER: 145-131-01C      2. START\_DATE: 10/79      3. REVISION\_NUMBER: 0  
4. TITLE: PROGRAM PLANNING AND SYSTEM ENGINEERING (VITRE)      5. MANAGER: E. F. CORINI  
6. ORGANIZATION: AFD-132      7. TELEPHONE\_NUMBER: 202-426-9324

9. REQUIREMENT: SRG LTR OF 9/21/79

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: MITRE  
AGREEMENT NUMBER: FY-80 TOS

### 11. SPECIFIC OBJECTIVES:

ANALYSE THE IMPACT OF PLANNED AUTOMATION ENHANCEMENTS ON THE CURRENT ATC SYSTEM. DEFINE INTERFACES OF TERMINAL AND ENROUTE AUTOMATION SYSTEMS. PROVIDE INPUTS TO COMPLETE REPLACEMENT REQUIREMENTS SPECIFICATION AND EVALUATION PLAN.

## 12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M		STRESS CONDITION ANALYSIS COMPLETE	10/80
M		9020 OFFLOADING CONCEPT ANALYSIS COMPLETE	10/80
M		SPECIFICATION REVIEW COMPLETE (EI)	9/81

REPORT DATE: 1/06/81

6. ORGANIZATION: ARD-131

9. REQUIREMENT: SRC LTR OF 9/21/78

10. PARTICIPATING GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:

**11. SPECIFIC OBJECTIVES:**

1. PREPARATION OF TERMINAL AUTOMATION REQUIREMENT SPECIFICATIONS AND DESIGN CONCEPT EVALUATION PROCEDURES. 2. DOCUMENTATION OF TERMINAL AND EN ROUTE HARDWARE, SOFTWARE, AND COMMUNICATION MODULE COMMONALITY.

## 12. MILESTONES:

<u>CURR</u>	<u>DATE</u>	<u>6/81</u>
<u>TYPE</u>	<u>INDICATOR</u>	<u>DESCRIPTION</u>
		<u>REQ CONCEPT PHASE FUNCT SPEC READY FOR FINAL COORD</u>

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REPORT DATE: 1/06/81

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1. PROJECT\_NUMBER: 151-410-01W                    2. START\_DATE: 1/78                    3. REVISION\_NUMBER: 6
  4. TITLE: SYSTEMS ENGINEERING SUPPORT                    5. MANAGER: ERIC MANDEL
  6. ORGANIZATION: ARD-410                    7. TELEPHONE\_NUMBER: 202-426-8427
  9. REQUIREMENT: AWES-EDPP(2.2.1)
  10. PARTICIPATING\_DOT/GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME:                    AGREEMENT NUMBER:  
 TSC-PPA                    FA-067-1A  
 FAA TECH CT-TPD                    15-789

11. SPECIFIC OBJECTIVES:

TO INSURE THAT THE AWES ACTIVITIES ARE INTEGRATED INTO A COMPREHENSIVE SYST WHICH SUPPORTS ALL APPLICABLE ELEMENTS OF THE NAS. SPECIFICALLY THIS INVOLVES DEVELOPING A CLEAR DEFINITION OF THE AV WX PROBLEM, PERFORMING VARIOUS BENEFIT ANALYSES, DEVELOPING A DETAILED FUNCTIONAL DESCRIPTION AND REQUIREMENTS DOCUMENT FOR THE INPUTS, PROCESSING, OUTPUTS DISPLAY, ETC PERTAINMENT TO THE SYSTEM DESIGN.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M		AWES FUNCTIONAL DESCRIPTION	10/80
M		SYSTEM ENGINEERING CONTRACT SELECTION	1/80
MC	TK	ETABS OPERATIONAL INTERFACE REQS	11/80
M	K	SUMMARY AWES FUNCTIONAL DESCRIPTION	3/81
MC	TK	SYSTEM DETAILED SPECIFICATIONS	12/81

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 \* RESEARCH AND TECHNOLOGY \*  
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REPORT DATE: 1/06/81

3. REVISION NUMBER: 2

2. START DATE: 6/79

1. PROJECT NUMBER: 151-412-01W

4. TITLE: DEVELOP DATA LINK WEATHER PRODUCTS

5. MANAGER: JOE GAMBLE

6. ORGANIZATION: ARD-410

7. TELEPHONE NUMBER: 202-426-8427

9. REQUIREMENT: AWES EDPP (2.2.7); ARD-1 REQUEST,

10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:                      AGREEMENT NUMBER:  
 FAA TECH CT - TPD (PENDING)            15-289

11. SPECIFIC OBJECTIVES:

OBTAIN REAL-TIME UPPER AIR WIND INFORMATION IN THE TERMINAL AREA BY PROCESSING DABS DERIVED TRACK/GROUND SPEED (FROM GROUND SENSOR) AND TRUE AIRSPEED/HEADING (DATA LINKED FROM AIRCRAFT).

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUPR
N P	N	DEMONSTRATE DATA LINK WX PRODUCTS SIMULATION	DATE
PCP	N	FIRST FULL SCALE D/L WX PROD TST USING DABS INPUTS	1/81
N P	N	1ST FULL SCALE WX PROD TST IN H/F OF WINDS TO M&S	6/82
N P	N	FINAL REPORT/TECH DATA PKG.ON DATA LINK WX PRODS	2/83
			5/83

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# R E S E A R C H   A N D   T E C H N O L O G Y

## TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 1/06/81

1 PROJECT NUMBER: 151-412-02W

2. START DATE: 5/80

3. REVISION NUMBER: 1

4. TITLE: COCKPIT WEATHER DISPLAY

5. MANAGER: JOE GAMBLE

6. ORGANIZATION: ARD-410

7. TELEPHONE NUMBER: 202-426-8427

9. REQUIREMENT: AWES EDPP (2.2.7)

### 10. PARTICIPATING DOY/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:  
FAA TECH CT-TPD (PENDING)

AGREEMENT NUMBER:  
15-289

### 11. SPECIFIC OBJECTIVES:

PROVIDE A LOW COST ALTERNATIVE FOR THE DISPLAY OF HAZARDOUS WEATHER IN GENERAL AVIATION AIRCRAFT WHICH ARE NOT RADAR EQUIPPED.

### 12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
P		TDP (GD ENVIRO) FOR COCKPIT WX DISPLAY	12/81
M	P	INSTALL COMPL OF GD & AIR EQUIP C/PIT WX DISPLAY	4/82
M	P	FLIGHT TESTS COMPL FOR C/PIT WX DISPL	8/82
M	P	PUBLISH RPT OF TEST RESULTS FOR C/PIT WX DISPLAY	10/82

REPORT DATE: 1/06/81

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 \* RESEARCH AND TECHNOLOGY \*  
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 \* TECHNICAL PROGRAM DOCUMENT \*  
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1. PROJECT\_NUMBER: 151-413-01W 2. START DATE: 9/79 3. REVISION\_NUMBER: 4

4. TITLE: CENTER WEATHER SERVICE UNIT (CWSU) DEVELOPMENT 5. MANAGER: JOE GAMBLE

6. ORGANIZATION: ARP-410 7. TELEPHONE\_NUMBER: 202-426-8427

9. REQUIREMENT: AMES-EDPP (2.2.2) (PENDING)

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 FAA TECH CT - TPD 15-289

11. SPECIFIC OBJECTIVES:

IN SUPPORT OF THE ECD PROG PLAN, PROVIDE AN AV WX SYS EXPERIMENTAL CAPABILITY AT FAA TECH CT BY ESTABLISHING AN "E" COMPLEX AS PART OF THE ENROUTE SSF, INTERFACED WITH THE TAFE AND EXPERIMENTAL FSS, AND MODIFY THE SSF ACCORDINGLY. DESIGN & CONDUCT VARIOUS EXPER. & TSTS IN SUPT OF THE AV WX DEV EFFORT TO RESOLVE THOSE ISSUES DEFINED IN THE AVIATION WEATHER SYSTEM PROGRAM PLAN.

12. MILESTONES:

INDICATOR	TYPE	DESCRIPTION	CURR DATE
MCP N		ESTABLISH INITIAL CWSU WORK STATION CAP (REPORT)	8/81
MCP N K		COMPLETE STAGE 1 FUNCTIONAL SPEC. FOR CWSU DEV	10/81
MCP N		COMPLETE STAGE 2 FUNCT. SPEC. FOR CWSU DEV	10/82
MCP N		COMPLETE STAGE 3 FUNCTIONAL SPEC. FOR CWSU DEV	4/84
N P		COMPL CWSU FLD T&E (AFTER DELIV. 1ST-PRODN-STG 3)	10/85



REPORT DATE: 1/06/81

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1. PROJECT NUMBER: 151-413-034 2. STAFF DATE: 5/80 3. REVISION NUMBER: 2  
4. TITLE: TERMINAL WEATHER CONTROLLER SUPPORT 5. MANAGER: GLENN GLASSBURN  
6. ORGANIZATION: APD-410 7. TELEPHONE NUMBER: 202-426-8427

9. REQUIREMENT: AWES-EDPF(2.2.5)

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

DISPLAY A/N WEATHER DATA ON TIDS AND CCD. DISPLAY WEATHER RADAR DATA ON THE ARTS DISPLAY AND DISPLAY  
OTHER GRAPHICS GENERATED BY THE CWSU ON THE ARTS OR A/N ALTERNATIVE DISPLAY.

12. MILESTONES:

TYPE	DESCRIPTION	CURR
INDICATOR	LETTER REPORT INPUT TO APD-100 TDP	DATE
M P		1/83

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 REPORT DATE: 1/06/81

1. PROJECT NUMBER: 151-413-04W 2. START DATE: 5/80 3. REVISION NUMBER: 2  
 4. TITLE: CENTER CONTROLLER SUPPORT 5. MANAGER: GLEN GLASSBURN  
 6. ORGANIZATION: ARD-410 7. TELEPHONE NUMBER: 202-426-8427  
 9. REQUIREMENT: AWES-EDPP (2.2.4)  
 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:

# 11. SPECIFIC OBJECTIVES:

DEVELOP, TEST AND EVALUATE METHODS FOR EFFECTIVELY DISPLAYING WEATHER INFORMATION ON CENTER CONTROLLER DISPLAY EQUIPMENT (IE, ETABS, PVD AND EWEDS).

# 12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
N	K	PRELIM WX FUNCT REQUIREMENTS FOR CT CONTROLLER SPT	2/82
PC	K	T&E ETABS PRODUCTS CONTENT (CT CONTROLLER SFT)	8/82
MC	K	LETTER REPORT TO APD-100 AS INPUT TO ETABS TDP	10/82
MP	K	REPORT TO ARD-100 AS INPUT TO EWEDS TDP	9/84

REPORT DATE: 1/06/81

1. PROJECT NUMBER: 151-413-064  
 2. START DATE: 6/79  
 3. REVISION NUMBER: 2  
 4. TITLE: SOLID STATE ATIS  
 5. MANAGER: RAYMOND COLAO

6. ORGANIZATION: AED-410  
 7. TELEPHONE NUMBER: 202-426-8427

9. REQUIREMENT: AWES-LDPP (2.2.5); 9550-1, AAF-430-79-007

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: TSC  
 AGREEMENT NUMBER: PFMA083

11. SPECIFIC OBJECTIVES:

DEVELOP A TDP FOR A SOLID-STATE REPLACEMENT FOR ATIS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M		SYSTEM DESIGN COMPLETE FOR SOLID STATE ATIS	8/79
MC		FIELD TEST COMPLETE FOR SOLID STATE ATIS	2/82
MC		TDP HAND OFF FOR SOLID STATE ATIS	3/82

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 REPORT DATE: 1/06/81

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- 1. PROJECT NUMBER: 152-410-024
  - 2. START DATE: 4/79
  - 3. REVISION NUMBER: 1
  - 4. TITLE: TERMINAL AREA WEATHER SUPPORT (PROFS)
  - 5. MANAGER: HINKELMAN/GLASSBURN
  - 6. ORGANIZATION: ARD-410
  - 7. TELEPHONE NUMBER: FTS-320-6819
  - 9. EQUIPMENT: AWES EDPP (2.2.9); NTSE LTR OF 7-27-77 AND 10-28-77
  - 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 NOAA/ERL JAA

11. SPECIFIC OBJECTIVES:

PARTICIPATE IN DENVER TERMINAL AREA IN JOINT NOAA/FAA TERMINAL AREA WEATHER SUPPORT SUBSYSTEM (PROFS) ENGINEERING AND TEST AND EVALUATION PROGRAM. PROFS OUTPUT TO BE USED AS CRITICAL INPUT TO AWES TERMINAL AREA SUBSYSTEM.

12. MILESTONES:

TYPE	DESCRIPTION	CUPR
INDICATOR	INITIAL SYSTEM FUNCTIONAL DESCRIPTION (PROFS)	DATE
M P		1/81

**REPORT DATE: 1/06/81**

ORGANIZATION NAME: COUNTY OF HUMBOLDT CA DOT  
SELECTED REGIONS AND AIRPORTS

DEVELOP CLIMATOLOGIES OF RVR VALUES AT SEVERAL AIRPORTS FOR USE IN THE IMPLEMENTATION OF CAT II AND CAT III LANDING SYSTEMS AND FOR VERY SHORT RANGE (0-30 MIN.) FORECASTS DEVELOPMENT.

TYPE	INDICATOR	DESCRIPTION	Curr DATE
REG	K	LTR RPT TO AAF AND AFO ON CAT III E RVF	10/80

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REPORT DATE: 1/06/81

- 1. PROJECT NUMBER: 153-410-014
- 2. START DATE: 1/78
- 3. REVISION NUMBER: 5
- 4. TITLE: AWOS AND WX SENSORS
- 5. MANAGER: JOHN DORMAN
- 6. ORGANIZATION: ARD-410
- 7. TELEPHONE NUMBER: 202-426-8427
- 9. REQUIREMENT: AWES EDPP (4.2.1); FSS PROGRAM; 9550-1, AFS-700-78-1
- 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:  
 NWS / NWS  
 NWS  
 HUMBOLT CT. CALIF.  
 AGREEMENT NUMBER:  
 FA73WAI394 FA78WA1872  
 FA78WAI407

11. SPECIFIC OBJECTIVES:

ENGINEER AND DEVELOP ACCEPTABLE AUTOMATED WEATHER OBSERVATION SYSTEMS. DEMONSTRATE THE FEASIBILITY OF AWOS THROUGH A DEMONSTRATION AND TEST PERIOD AT DULLES AIRPORT.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
		WAVE TDP FORWARDED TO AAF	DATE
		PRELIMINARY AWOS TDP COMPLETE	4/80
		ENHANCED AWOS TDP COMPLETE	1/81
MC	K	AWOS TDP COMPLETE	4/81
MC	K	AWOS TDP COMPLETE	4/82

REPORT DATE: 1/06/81

3. REVISION NUMBER: 1

AGRFEMENT NUMBER:  
FA77WA1818

TO PROVIDE WEATHER OBSERVATION AND DETECTION SYSTEM TO SUPPORT THE INCREASE OF HELICOPTER OPERATIONS. DEVELOP AND TEST LOW COST WEATHER OBSERVATION SYSTEM (ALMOS) THAT WILL WITHSTAND SALT ENVIRONMENT. DEVELOP AND TEST THUNDERSTORM (SPHERICS) TRACKING SYSTEM IN GULF OF MEXICO.

TYPE	INDICATOR	DESCRIPTION	CURR DATE
N		INSTALL TSTM DETECT SYS IN APQ	6/80
N		INSTALL TSTM DET. SYS ON GULF COAST	9/80
N	X	START GULF TSTM DET SYS TCE	10/80
N	.	DEPLOY ALWOS ON OFFSHORE PLAT	4/81
N		COMPLETE INITIAL AEG TESTS FOR HELO. WX DET SYST	10/81
N		COMPLETE INITIAL GULF ALWOS TESTS, HELO. WX DET SYST	10/81
N	X	COMPLETE GULF TSTM DET SYS TESTS FOR HELICOPTERS	12/81
N	X	COMP TSTM DETECT SYS TDE FOR HELO. WX DET SYST.	8/82
N	X	COMP GULF TESTS OF MOD ALWOS (FINAL REPORT)	10/82

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REPORT DATE: 1/06/81

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- 1. PROJECT NUMBER: 155-410-01W
- 2. START DATE: 5/80
- 3. REVISION NUMBER: 2
- 4. TITLE: NEXRAD JSPO SUPPORT
- 5. MANAGER: SONAR/GLASSBURN
- 6. ORGANIZATION: RND-410
- 7. TELEPHONE NUMBER: 202-427-7150
- 9. REQUIREMENT: AWES EDP(3.2.1) DIPECTIVE FROM OMP & FED COORD. OF METEOROLOGY.
- 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

PROVIDE DIRECT SUPPORT TO NEXRAD JSPO OR DOT SHARE OF THE JSPO BUDGET SO THAT ENGINEERING SUPPORT AND FUNDING OF COMPETITIVE DEVELOPMENT CONTRACTS UNDER A-109 PROCESS CAN BE OBTAINED.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CYCLE	DATE
MC	K	JOINT NEXRAD PROGRAM PLAN APPROVED		10/80
MC	K	AWARD MULTIPLE SYSTEM DESIGN PHASE CONTRACT, NEXRAD		9/81
MC	K	AWARD MULTIPLE VALIDATION PHASE CONTRACT, NEXRAD		8/82
MC	K	AWARD FULL SCALE DEVELOPMENT CONTRACTS, NEXRAD		1/85



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REPORT DATE: 1/06/81

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- 1. PROJECT NUMBER: 155-410-02W      2. START DATE: 7/79      3. REVISION NUMBER: 2
- 4. TITLE: NEXRAD REQUIREMENTS ANALYSIS ENGINEERING SUPPORT      5. MANAGER: CARROLL WOPKMAN
- 6. ORGANIZATION: ARD-410      7. TELEPHONE NUMBER: 202-426-8427
- 9. REQUIREMENT: AWES FDP (3.2.2) NEXRAD PROGRAM
- 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: TSC PPA      AGREEMENT NUMBER: FAC88

11. SPECIFIC OBJECTIVES:

PERFORM COST/BENEFIT ANALYSIS, SITE ANALYSIS AND IMPLEMENTATION PLANNING FOR THE NEXT GENERATION OF WEATHER RADAR. THIS PROGRAM ALSO MUST PROVIDE OVERALL ENGINEERING SUPPORT TO THE JSPO TO INSURE THAT FAA REQUIREMENTS ARE SATISFIED.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUFR
✓	1	PROJECT REPORT ON NEXRAD FDP ANALYSIS	DATE 2/80
✓	2	TASK #2 INTERIM REPORT ALTERNATIVE ANALYSIS, NEXRAD	7/80
✓	3	COST BENEFIT ANALYSIS, NEXRAD REQUIREMENTS	9/82

AD-A096 293

FEDERAL AVIATION ADMINISTRATION WASHINGTON DC SYSTEM--ETC F/6 1/5  
SRDS TECHNICAL PROGRAM DOCUMENT. FISCAL YEAR 1981. RESEARCH & D--ETC(U)  
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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 155-410-03W      2. START DATE: 5/80      3. REVISION NUMBER: 2

4. TITLE: NEXRAD RADAR TERMINAL AREA COVERAGE STUDIES

5. MANAGER: FRANK COONS

6. ORGANIZATION: ARD-410      7. TELEPHONE NUMBER: 202-426-8427

9. REQUIREMENT: AWES EDPP(3.2.3)

10. PARTICIPATING DOT/SOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:  
 NCRA/FAADTFA01      80-Y-10524  
 DEPT OF COMM., NOAA NSSL IAA      DT FA01-80-Y-10524

11. SPECIFIC OBJECTIVES:

DETERMINE THE WEATHER RADAR SITING CRITERIA FOR TERMINAL AREA (30N MI RADIUS ) COVERAGE .

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUPR
		DETECT OF HAZ WX IN T/A BY DOP WX RADAR (ANI RPT)	DATE
		TERMINAL AREA HAZARD DETECTION ANAL REPORT COMPL	12/80
		RPT ON DOP WX RADAR SITING CRIT TO DET T/A WX HAZ	12/81
			1/82

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REPORT DATE: 1/06/81

TECHNICAL PROGRAM DOCUMENT

1. PROJECT NUMBER: 156-230-01W 2. START DATE: 12/79 3. REVISION NUMBER: 0  
 4. TITLE: TERMINAL WEATHER RADAR DEVELOPMENT 5. MANAGER: ISADORE GOLDMAN

6. ORGANIZATION: ARD-231 7. TELEPHONE NUMBER: 202-426-8576

9. REQUIREMENT: AWES-BDPP(3.2.6/3.2.5/3.2.3) ADA-1/AED-1/ARD-1/2 DIRECTION 6/25/76

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:	AGREEMENT NUMBER:
USAF MIT/LINCOLN LAB	IAA DTFA 0180Y10546
NOAA NATIONAL SEVERE STORMS LAB	IAA DTFA 0180Y10524
FAA TECH CENTER PROJ. # 156230510/20/30	TPD 02-106

11. SPECIFIC OBJECTIVES:

EVALUATE PULSE DOPPLER CAPABILITY TO DETECT HAZARDOUS WEATHER. EVALUATE TECHNIQUES TO REDUCE DATA CONTAMINATION PROBLEMS (E.G., GROUND CLUTTER) OF NEXRAD. DETERMINE HOW BEST TO MEET FAA'S REQUIREMENTS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUPR
M	W	RPT-WX DATA ANAL TO ESTABLISH HAZ CORREL	DATE
MC	K	RPT-TERM WX TECH RFQUS & CAND SYS DESC	4/81
M		RPT SCAN RATE STUDY	6/81
M		SIGNAL PROCESSING/HDRP/SFTWR DEVELOPED	6/82
K P		T & F OF EXPR SYST IN 3 ENVIRONMENTS COMPLETE	9/85
MC	W	TDP ISSUED FOR TERMINAL WEATHER RADAR	2/P6

REPORT DATE: 1/06/81

3. REVISION NUMBER: 1

5. MANAGER: ISADORE GOLDMAN

# MENTAL TESTING IN FBI

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 REPORT DATE: 1/06/81  
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1. PROJECT NUMBER: 156-231-01W 2. START DATE: 10/80 3. REVISION NUMBER: C  
 4. TITLE: WEATHER RADAR SUSTAINING ENGINEERING 5. MANAGER: ISADORE GOLDMAN

6. ORGANIZATION: ASD-231 7. TELEPHONE NUMBER: 202-426-8576

9. REQUIREMENT: ADA-1/ALD-1/ALD-1/2 DIRECTION 6/25/76; AWES-EDDP(3.2.6/3.2.5/3.2.3)

10. PARTICIPATING GOVT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 USAF MIT/LINCOLN LAB IAA DTFA 0180Y10546  
 FAA TECH CTR PROJECT # 156230510/20/30 TFD 02-106

11. SPECIFIC OBJECTIVES:

NOTE: THIS PROJECT RESUME COVERS THE FEE FUNDED PORTION OF PROJECT 156-230-01W FOR TERMINAL WEATHER RADAR DEVELOPMENT.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUPP
M	M	RPT-WA DATA ANAL TO ESTABLISH HAZ CORREL	DATE
MC	M	RPT-TERM WX TECH REQUS & CAND SYS DESC	4/81
M	M	RPT SCAN RATE STUDY	6/81
M	M	SIGNAL PROCESSING/HDR2/STWTH DEVELOPER	6/82
P	P	T E E OF RADAR SYST IN 3 ENVIRONMENTS COMPLETE	9/85
MC	M	TOP ISSUED FOR TERMINAL WEATHER RADAR	2/86

REPORT DATE: 1/06/81

TYPE	INDICATOR	DESCRIPTION	DATE	CURR
A		1976-1977 THUNDERSTORM PENETRATION DATA ANALYSTS	9/79	
MC	K	ENHANCED ALGORITHM TEST METEOROLOGICAL TECH DEV	8/80	
Y		FINAL SOFTWARE TDP COMPLETE, METEOROLOGICAL TECH DEV	10/82	

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REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 156-410-02W      2. START\_DATE: 5/80      3. REVISION\_NUMBER: 1

4. TITLE: AIRBORNE DOPPLER WEATHER RADAR EVALUATION      5. MANAGER: JIM MUNCY

6. ORGANIZATION: ARD-410      7. TELEPHONE\_NUMBER: 202-426-8427

9. REQUIREMENT: AWES PROGRAM

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:

11. SPECIFIC OBJECTIVES:

FLIGHT TEST COMMERCIAL AIRBORNE DOPPLER WEATHER RADAR USING GROUND BASED DOPPLER AS A STANDARD.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MCF	X	FLIGHT TESTING OF COMMERCIAL AIRBORNE DOPPLER COMP	9/81
MCP	X	FINAL REPORT COMPLETE, AIRBORNE DOPPLER WX RADAR	12/82



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RESEARCH AND TECHNOLOGY  
TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 1/06/81

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- 1. PROJECT\_NUMBER: 182-530-17W      2. START\_DATE: 6/78      3. REVISION\_NUMBER: 0
- 4. TITLE: HELICOPTER ICING ENVIRONMENT FOR AIRWORTHINESS STDS & CERTIFICATION      5. MANAGER: A. HILSENROD
- 6. ORGANIZATION: ARD-413-      7. TELEPHONE\_NUMBER: 202-426-8427
- 9. REQUIREMENT: 9550-1, HELI ICING CERT.CIT. AFS-100-78-160 & ARC REPLY 2-78.
- 10. PARTICIPATING\_DOT/GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:  
NAVAL RESEARCH LABORATORY      IAA DCT      FA79WAIC20

11. SPECIFIC OBJECTIVES:

OBTAIN DATA ON NATURAL ENVIRONMENT ICING CONDITIONS BELOW 8000 FEET FOR ESTABLISHING AIRWORTHINESS STDS FOR USE IN CERTIFYING HELICOPTERS FOR FLIGHT INTO ICING CONDITIONS. DATA WILL BE OBTAINED ON LIQUID WATER CONTENT, DROP SIZE DISTRIBUTION AND TEMPERATURE FOR INCLUSION IN FAR 527 AND 29.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
M		INTERIM RPTOPT PUBLISHED	DATE
M		DRAFT SECOND REPORT	4/80
M		SECOND REPORT PUBLISHED	11/80
M		DRAFT ICING STANDARDS TO FO	1/80



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REPORT DATE: 1/06/81

- 1. PROJECT NUMBER: 213-460-090
- 2. START DATE: 2/81
- 3. REVISION NUMBER: 1
- 4. TITLE: AERONAUTICAL BAND STUDIES
- 5. MANAGER: CHARLES CRAM
- 6. ORGANIZATION: AFD-450
- 7. TELEPHONE NUMBER: 202-426-3628
- 9. REQUIREMENT: FAA-FD-21-4, SECTION 2.2.7
- 10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: ITS  
 AGREEMENT NUMBER: PR #5830

11. SPECIFIC OBJECTIVES:

THE PURPOSE OF THIS TASK IS TO IDENTIFY THE INTERFERENCE THRESHOLDS FOR AVIONICS OPERATING IN THE AVIATION FREQUENCY BANDS. ICAO HAS ESTABLISHED THE HARMFUL INTERFERENCE TO RADIO STUDY GROUP TO INVESTIGATE CAUSES AND REMEDIES FOR INTERFERENCE TO EQUIPMENT IN ALL OF THE AERONAUTICAL FREQUENCY BANDS. FAA PROVIDES THE SOLE U.S. REMEDY. WHILE A SUBSTANTIAL AMOUNT OF INFORMATION HAS BEEN PRESENTED ON ADF, ILS, VOR, AND VHF COM, OTHER BANDS HAVE RECEIVED LITTLE ATTENTION. THIS TASK WILL INITIALLY ADDRESS HF COM (2.85 -23.35 MHZ) AND APSR (124C-1370 MHZ). OTHER BANDS MAY BE ADDRESSED LATER.

12. MILESTONES:

TYPE	DESCRIPTION	CURR
INDICATOR	FINAL REPORT ISSUED	DATE
N		10/83

REPORT DATE: 1/06/81

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1. PROJECT NUMBER: 213-460-330      2. START DATE: 10/78      3. REVISION NUMBER: 0
4. TITLE: ALASKAN AIR/GROUND HIGH FREQUENCY COMMUNICATIONS PREDICTION SERVICE      5. MANAGER: RICK DUPRE
6. ORGANIZATION: ARD-451D      7. TELEPHONE NUMBER: 202-426-3994
9. REQUIREMENT: 9550(AAL-400) MEMO 2/17/76 ARD-1 RESPONSE 5/18/76 9550 #AL-076-003
10. PARTICIPATING DOY/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:  
FAM/NAVY/AIR FORCE/NOAA COUP EFFORT

11. SPECIFIC OBJECTIVES:

AIRCRAFT IN NORTHERN LATITUDES BEYOND SYNCHRONOUS SATELLITE AND VHF COVERAGE ARE DEPENDENT ON HF COMMUNICATIONS. SOLAR DISTURBANCES INTERRUPT HF COMMUNICATIONS. A "REAL TIME" PREDICTION SERVICE OF THE NAVY "PROPHET" TYPE WILL PROVIDE ATC WITH THE MEANS TO REDUCE OUTAGE TIMES, SAVE OPERATOR TRIAL & ERROR TIME, POWER RELATED TO SIMULTANEOUS USE OF MULTIPLE FREQ. & PROV. ADVANCE WARN OF OMEGA DETECTION

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
M	PREDICTION	TERMINAL INSTALLATION	DATE
M	OPERATIONAL TESTING COMPLETE		6/80
			12/80

1. PROJECT NUMBER: 213-462-020

2. START DATE: 1/80

3. REVISION NUMBER: 0
4. TITLE: LF/MF ASSIGNMENT HANDBOOK REVISION

5. MANAGER: ROBERT SMITH
6. ORGANIZATION: AND-452

7. TELEPHONE NUMBER: 202-426-3628
9. REQUIREMENT: FAA-ED-21-4, SECTION 2.2.1(2) PAGE 8
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:

DCC (NTIA/ITS)

DOD (ECAC)

OHIO UNIVERSITY

AGREEMENT NUMBER:

DTFA01-80-C-10072

11. SPECIFIC OBJECTIVES:
- REVISE THE LF/MF FREQUENCY ASSIGNMENT HANDBOOK TO REFLECT NEW INTERFERENCE PREDICTION CRITERIA AND METHODS. TO EXTEND ASSIGNMENT METHOD TO NEW BANDS FOR NON-DIRECTIONAL BEACONS PROPOSED IN WARC 79 AND TO DEVELOP AND INCORPORATE SHARING CRITERIA WITH MARITIME RADIO NAVIGATION AND TRAVELLERS INFORMATION SERVICE BROADCASTING.

12. MILESTONES:
- |      |           |                               |      |
|------|-----------|-------------------------------|------|
| TYPE | INDICATOR | DESCRIPTION                   | CURR |
| M    |           | AWARD CONTRACTS TO OHIO UNIV. | DATE |
|      |           | FINAL HANDBOOK                | 6/80 |
|      |           |                               | 6/82 |

REPORT DATE: 1/06/81

1. PROJECT NUMBER: 213-462-070
2. START DATE: 10/79
3. REVISION NUMBER: 1
4. TITLE: PCAS EMC ANALYSIS (ECAC)
5. MANAGER: JERRY LEE ANDERSON
6. ORGANIZATION: ASD-451
7. TELEPHONE NUMBER: 202-426-3994
9. REFERENCE: FAA-ED-21-4, SECTION 2.2.8
10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

AGREEMENT NUMBER:  
IAA EA77WAI-778

ORGANIZATION NAME:  
ECAC TASK 6

### 11. SPECIFIC OBJECTIVES:

TO DETERMINE THE IMPACT ON THE BACON DRIVEN ACTIVE (BCAS) IN AN ATMS/ATCRS/DABS ENVIRONMENT AND TO PREDICT ACTIVE BCAS INTERFERENCE TO ATCPBS/DABS/AJMS. THE FY-80 EFFORT IS TO PREDICT: THE IMPACT OF THE IMPROVED ACTIVE BCAS ON ATCRS, DABS, AND AIMS MODEL IN THE LOS ANGELES BASIN AREA, 1982 ENVIRONMENT. TO DETERMINE THEIMP OF BCAS AND TACAN/DME FFPOM A FREQUENCY MANAGEMENT STANDPOINT.

**12. MILESTONES:**

TYPE INDICATOR	DESCRIPTION	CURN DATE
1	DELIVER CAMERA COPY OF RPT ON LA BASIN	4/81
2	SUBMIT CAMERA COPY OF FINAL REPORT	4/81

CURR  
DATE 4/81 4/81

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REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 213-462-360      2. START DATE: 10/76      3. REVISION\_NUMBER: 0
4. TITLE: VHF/UHF AIR/GRND COMMUNICATIONS FREQUENCY ENGINEERING WDEK 6050.4B      5. MANAGER: CHARLES CRAM
6. ORGANIZATION: ARD-452B      7. TELEPHONE\_NUMBER: 202-426-3994
9. REQUIREMENT: FAA-ED-21-4, SECTION 2.2.1(2), PAGE 8
10. PARTICIPATING\_DOT/GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:  
 ITS      IAA      FA77WAI778  
 FCAC      IAA      FA70WAI775

11. SPECIFIC OBJECTIVES:

TO UPDATE THE EXISTING HANDBOOK WHICH ESTABLISHES CRITERIA FOR ASSIGNMENT OF FREQUENCIES TO VHF/UHF AIR/GROUND ("AERONAUTICAL MOBILE SERVICE", AS DEFINED BY THE INTERNATIONAL TELECOMMUNICATION UNION) COMMUNICATIONS FACILITIES TECHNICAL AND ENVIRONMENTAL DISCUSSIONS ARE ALSO GIVEN FOR THE INSTRUCTION AND GUIDANCE OF THE FREQUENCY ENGINEERS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
M		DEVELOP TRANSMISSION LOSS CURVES	11/76
M		SEPARATION CRITERIA FOR SERVICE VOLUMES	12/76
V		SEPARATION OF ANTENNAS AT SITE	3/77
M		ANTENNA PATTERNS COMPLETE	4/77
X		FINAL HANDBOOK	9/81

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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 243-462-370      2. START DATE: 11/76      3. REVISION NUMBER: 0
4. TITLE: VHF/UHF MICROWAVE LINK FREQUENCY ENGINEERING HANDBOOK, 6050.17A REV      5. MANAGER: J. D. FRETZ
6. ORGANIZATION: ARD-451C      7. TELEPHONE NUMBER: 202-426-3994
9. REQUIREMENT: FRA-ED-21-4, SECTION 2.2.9
10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:      IAA      AGREEMENT NUMBER:      FA78HAI778

ECAC

11. SPECIFIC OBJECTIVES:

TO REVISE HANDBOOK 6050.17A TO INCORPORATE 1) CRITERIA FOR NEW EQUIPMENT SUCH AS THE TELEVISION MICROWAVE LINKS 2) NEW FREQUENCIES AND INTERFERENCE ANALYSES FOR BAND SHARING WITH HIGH POWER SATELLITE SYSTEMS 3) IMPROVED ELECTROMAGNETIC COMPATIBILITY ANALYSIS AIDS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
1		ECAC CONTRACT AWARD FREQ ASSIGNMENT MODEL	DATE
2		ECAC CONTRACT COMPLETE	2/80
4		FINAL HANDBOOK DELIVERED (ECAC INPUT FINAL FORM)	2/81
5		FINAL HANDBOOK APPROVAL	12/80



REPORT DATE: 1/06/81

AGREEMENT NUMBER:

CONDUCT IN-DEPTH ANALYSIS OF THE HUMAN FACTOR IMPLICATION OF PETRICATION TO DETERMINE THE IMPACT/RISK INVOLVED IN METRIC CONVERSION.

TYPE	INDICATOR	DESCRIPTION	CUPR
		CONTRACT FOR HUMAN FACTOR STUDY	DATE
		HUMAN FACTORS STUDY RPT COMPLETE	12/83
		METRIC CONVERSION CONFIGURATION REPORT	12/84
			6/86

REPORT DATE: 1/06/81

1. PROJECT NUMBER: 218-150-C1C

2. START DATE: 0/00

3. FEVISION NUMBER: 4

4. TITLE: FAK NASA SIMULATIONS

5. MANAGER: JOSEPH O'BRIEN

6. ORGANIZATION: ARD-102

7. TELEPHONE NUMBER: 202-426-9332

9. REQUIREMENT: SRDS/NASA AMES LCP 6/21/74 & NAFEC/AMES LCP -256 (910-003-160)

**10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:**

ORGANIZATION NAME:  
NASA Ames  
FATC/AMES

AGREEMENT NUMBER:  
IAA-256

### 11. SPECIFIC OBJECTIVES:

PROVIDE OPERATIONAL SCENARIOS USING HIGH PERFORMANCE FLIGHT SIMULATORS AT NASA AMES RESEARCH CENTER, TO EVALUATE ADVANCED 4D ELECTRONICS SYSTEMS, FOR LIVE TESTS OF STOL AIRCRAFT AND IN DESIGN, TEST, AND EVALUATION OF FUEL OPTIMIZED FLIGHT PROCEDURES.

## 12. MILESTONES:

TYPE INDICATOR	DESCRIPTION	TESTS AT AMES	TESTS ON AMES 40	TESTS (FID)
1	START 45	TESTS AT AMES	TESTS ON AMES 40	TESTS (FID)
2	FINAL REPORT	TESTS AT AMES	TESTS ON AMES 40	TESTS (FID)
3	FINAL REPORT	TESTS AT AMES	TESTS ON AMES 40	TESTS (FID)

CURR  
DATE  
8/81  
11/81

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 \* RESEARCH AND TECHNOLOGY \*  
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 \* TECHNICAL PROGRAM DOCUMENT \*  
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REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 218-152-020 2. START\_DATE: 5/80 3. REVISION\_NUMBER: 0  
 4. TITLE: STUDY OF SIMULTANEOUS TRIPLE ILS APPROACHES 5. MANAGER: JOSEPH P. O'BRIEN  
 6. ORGANIZATION: ARD-102 7. TELEPHONE\_NUMBER: 202-426-9332

9. REQUIREMENT: 9550 AAT 300-30

10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:  
 FAA TECH CENTER TPD 14-211  
 PAT-320 (WYLES REYNOLDS) NONE

11. SPECIFIC OBJECTIVES:

TO DETERMINE THE FEASIBILITY OF SIMULTANEOUS ILS (CAT I, II, AND III) APPROACHES TO 3 OR MORE PARALLEL RUNWAYS.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
A	A	PRODUCT PLAN COMPLETED	11/80
N	N	DYNAMIC SIMULATION COMPLETED	11/80
N	N	REPORT ON CHI TRIPLE RUNWAY STUDY COMPLETED (EJ)	2/81

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REPORT DATE: 1/06/81

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1. PROJECT\_NUMBER: 215-152-030                    2. START\_DATE: 12/80                    3. REVISION\_NUMBER: 0  
 4. TITLE: CHICAGO MIDWAY AIRSPACE STUDY                    5. MANAGER: JOSEPH P. O'BRIEN

6. ORGANIZATION: AFD-102                    7. TELEPHONE\_NUMBER: 202-426-9332

9. REQUIREMENT: LETTER REQUEST FROM ATF

10. PARTICIPATING\_DOWNSGOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME:  
 FAA TECH CENTER  
 ATF-4, J. DZUK  
 AGREEMENT NUMBER:  
 TPD 14-211  
 NOV

11. SPECIFIC OBJECTIVES:

TO STUDY AIRSPACE AND IMPACT ON REACTIVATING THE CHICAGO MIDWAY AIRPORT.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
P	N	PROJECT PLAN	DATE
N	N	FINAL REPORT COMPLETED (EI)	1/81
			7/81

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 \* TECHNICAL PROGRAM DOCUMENT \*  
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REPORT DATE: 1/06/81

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- 1. PROJECT\_NUMBER: 212-152-040
  - 2. START\_DATE: 5/80
  - 3. REVISION\_NUMBER: 0
  - 4. TITLE: MEXICO CITY AIRSPACE/AIRPORT STUDY
  - 5. MANAGER: JOSEPH P. O'BRIEN
  - 6. ORGANIZATION: AND-102
  - 7. TELEPHONE\_NUMBER: 202-426-9332
  - 9. REQUIREMENT: REQUEST FROM DIRECTOR GENERAL, CIVIL AVIATION, MEXICO.
  - 10. PARTICIPATING-DOT/GOVERNMENT\_ORGANIZATIONS-AND-AGREEMENT\_NUMBERS:

ORGANIZATION NAME:  
 FAA TECH CENTER  
 ASW-500 (JOHN FLISKO)

AGREEMENT NUMBER:  
 TPD 14-211  
 NONE

11. SPECIFIC OBJECTIVES:

STUDY THE AIRSPACE FOR THE MEXICO CITY AIRPORT AND FOR THE ADDITIONAL RUNWAY. EXPECT THAT THE MEMORANDUM OF AGREEMENT WILL BE CHANGED BY THE MEXICAN GOVERNMENT.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
M	N	PRODUCT PLAN COMPLETED	DATE 11/80
M	N	FINAL STUDY REPORT COMPLETED (FI)	8/81

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# R E S E A R C H   A N D   T E C H N O L O G Y

## TECHNICAL PROGRAM DOCUMENT

REPORT DATE: 1/06/81

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1. PROJECT\_NUMBER: 218-154-01H      2. START\_DATE: 10/79      3. REVISION\_NUMBER: 0  
4. TITLE: FAA/NASA VTOL SUPPORT PROGRAM      5. MANAGER: JOSEPH O'BRIEN

6. ORGANIZATION: ARD-102      7. TELEPHONE\_NUMBER: 202-426-9332

9. REQUIREMENT: HELICOPTER PROGRAM PLAN

10. PARTICIPATING\_DOT/GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME:      AGREEMENT NUMBER:  
NASA      LOA 6/74

11. SPECIFIC OBJECTIVES:

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR DATE
MC		REPORT, PROCEDURES AND SPECIFICATION COMPLETE (EI)	9/81
MC		START SIM OF INEP SIMU APPR FOR HELI	6/80
MC		LETTER REPORT ON SIMULATION	10/80
M		CONTRACT SIGNED	1/81
M		SIMULATION COMPLETE	6/81
MC		REPORT, PROCEDURES AND SPECIFICATION COMPLETE (EI)	9/81
V		FINAL RPT FOR SIM OF INDEP HELI APPROACHES (EI)	2/P1

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 \* RESEARCH AND TECHNOLOGY \*  
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 \* TECHNICAL PROGRAM DOCUMENT \*  
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REPORT DATE: 1/06/81

1. PROJECT NUMBER: 218-154-02H 2. START DATE: 1/79 3. REVISION NUMBER: 0  
 4. TITLE: LORAN FLIGHT FOLLOWING (LCFF) 5. MANAGER: J.O'BRIEN/R.HILTON

6. ORGANIZATION: ARD-102/ARD-350 7. TELEPHONE NUMBER: 202-426-0332

9. REQUIREMENT: HELICOPTER DEVELOPMENT PLAN

10. PARTICIPATING DOI/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME:	AGREEMENT NUMBER:
TSC	PPA FA-084
SOUTHWEST REGION	NCNE
HOUSTON CENTER	NONE

11. SPECIFIC OBJECTIVES:

TO EVALUATE THE LORAN FLIGHT FOLLOWING (LCFF) SYSTEM IN THE HOUSTON CENTER USING THE DEC 1134  
 COMPUTER AND A NEGATEK GRAPHIC DISPLAY TO COVER HELICOPTER OPERATIONS IN THE GULF OF MEXICO.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
M	T	INTERIM REPORT COMPLETED (EI)	DATE 9/81
M	T	FINAL REPORT COMPLETED (EI)	6/82

1. PROJECT NUMBER: 219-151-010 2. START DATE: 3/79 3. REVISION NUMBER: 2
4. TITLE: REMOTE MAINTENANCE MONITORING SYSTEM WITH CONSOLIDATED DISPLAYS 5. MANAGER: HOLLY BARLAGE
6. ORGANIZATION: APC-121 7. TELEPHONE NUMBER: 202-426-9338
9. REQUIREMENT: AAF/AED/ANA IAA ETD 3/16/78
10. PARTICIPATING DOT/GOVERNMENT ORGANIZATIONS AND AGREEMENT NUMBERS:

ORGANIZATION NAME: AAF/C  
 AGREEMENT NUMBER: TFD 21-199

11. SPECIFIC OBJECTIVES:

TO PROVIDE ANALYTICAL AND TECHNICAL SUPPORT TO AAF IN THEIR PROCUREMENT OF A REMOTE MAINTENANCE MONITORING SYSTEM WITH CONSOLIDATED CAE DISPLAYS AS STIPULATED IN THE APPROVAL INTER-AGENCY AGREEMENT BETWEEN AAF, AED AND NAPEC.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
M	1	FAATC RMS TEST FED INTEGRATION COMPLETE	DATE
M	2	ER FOR VAS/LLWSAS/CCD COMPLETED	5/80
M	3	DEMO RMS FOR VAS/LLWSAS	4/80
M	4	FINAL RPT ON RMS FOR VAS/LLWSAS	
M	5	T&F REMOTE SITE MONITOR	7/80
M	6	RPT ON REMOTE SITE MONITOR	9/80
M	7	TEST & EVAL INTERROGATOR SITE MONITOR	4/81
M	8	RPT ON INTERROGATOR SITE MONITOR	6/81





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REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 219-152-010 2. START\_DATE: 10/79 3. REVISION\_NUMBER: 3  
 4. TITLE: EVALUATION OF COLOR DISPLAYS FOR ATC 5. MANAGER: JOSEPH O'BRIEN  
 6. ORGANIZATION: ARP-102 7. TELEPHONE\_NUMBER: 202-426-9332  
 9. REQUIREMENT: 9550 - AAF 610-78-006

10. PARTICIPATING-GOV/GOVERNMENT-ORGANIZATIONS-AND-AGREEMENT-NUMBERS:

AGREEMENT NUMBER:

ORGANIZATION NAME:  
 AAF/SRDS/FAATC/AAAT/WASH ARTCC  
 RAYTHEON CORPORATION

11. SPECIFIC OBJECTIVES:

PERFORM A TECHNICAL AND OPERATIONAL EVALUATION OF THE PLANNED VIEW DISPLAY (PVD) AND DISPLAY CONTROL VECTOR GENERATOR (DCVG) COLOR MODIFICATION. STUDY AND EVALUATE OTHER PROMISING COLOR DISPLAY TECHNIQUES LEADING TO A SPECIFICATION.

12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CURR
4	SPC/EVAL COMPLETED		DATE 5/81
10	FINAL RPT ON FIELD TEST (9550) (FI)		8/81

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REPORT DATE: 1/06/81

1. PROJECT\_NUMBER: 219-454-010 2. START\_DATE: 10/79 3. REVISION\_NUMBER: C  
 4. TITLE: DESCR/DEFINITION OF FUTURE ATC SYSTEMS AND ASSOCIATED INTERFACES 5. MANAGER: JAMES H CHILDEPS  
 6. ORGANIZATION: ARD-441 7. TELEPHONE\_NUMBER: 202-426-8617  
 9. REQUIREMENT: FUNC INTEG TO INSURE SRDS PGMS ARE ACCOM ON TIME/COMPATIBLE & COORD  
 10. PARTICIPATING\_DOT/GOVERNMENT\_ORGANIZATIONS\_AND\_AGREEMENT\_NUMBERS:

ORGANIZATION NAME: AGREEMENT NUMBER:

# 11. SPECIFIC OBJECTIVES:

TO ASSURE PROPER INTERFACES AMONG EQUIP, SYSTEMS, AND PROGRAMS ARE BEING ACCOMPLISHED. TO ASSURE COMPATIBILITY OF INDIVIDUAL EFFORTS PROPER SCHEDULE INTEGRATION. UPDATE PREVIOUS DESCRIPTION OF ATC SYSTEMS FOR NEAR-TERM AND LONG-TERM SCENARIOS.

# 12. MILESTONES:

TYPE	INDICATOR	DESCRIPTION	CUIR	DATE
M		PUBLISH BLUE BOOK (INTEGRATION ISSUES)	5/80	5/80
M		UPDATE BLUE BOOK	1/80	1/80
M		UPDATE BLUE BOOK	1/82	1/82
M		UPDATE BLUE BOOK	1/83	1/83
M		UPDATE SYSTEM DESCRIPTION	1/83	1/83
M		UPDATE BLUE BOOK	1/84	1/84
M		UPDATE BLUE BOOK	1/85	1/85
M		UPDATE SYSTEM DESCRIPTION	1/85	1/85

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